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THERAPEUTIC "INFORMATION PLEASE"

The following eight papers were presented as a panel discussion, followed by a question and answer period, before a joint meeting of the Section on Internal Medicine and the Section on Experimental Medicine and Therapeutics at the Ninety-Fifth Annual Session of the American Medical Association, San Francisco, July 5, 1946. The panel fails to include the paper by Dr. Frank E. Adair on "Cancer," since the manuscript was not provided. The manuscripts are published without the bibliographies because of the somewhat informal manner of the presentation. Nevertheless the success of this panel discussion in attracting great numbers of listeners who were hearty in their approval of the presentation leads to its publication in this form. The Moderator was Dr. James A. Paullin, Atlanta, Ga.

HEMATOLOGY

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THERAPEUTIC EFFECT OF FOLIC ACID

One of the most outstanding advances in hematology since the introduction of liver therapy is the demonstration that crystalline synthetic folic acid, which occurs in its conjugated form as a component of the vitamin B complex, is effective in the treatment of macrocytic anemias with a megaloblastic bone marrow. Such anemias include addisonian pernicious anemia, sprue, nutritional anemia and the macrocytic anemia of pregnancy, of infancy and following total gastrectomy. It has not been proved to be of value in the treatment of other disturbances of the blood, with the possible exception of the leukopenia associated with nutritional states. When administered orally or parenterally to patients with pernicious anemia or allied macrocytic anemias, in doses of 10 to 20 mg. daily, it induces a prompt rise in reticulocytes of the circulating blood, a standard increase in the red blood cell count and hemoglobin and all the well known dramatic clinical manifestations of recovery observed in such patients when potent liver extract is given. The maintenance dose is unknown, but it may be as small as 20 mg. a week. Careful, long-continued clinical observations are essential to determine the ultimate place of folic acid in the treatment of the macrocytic anemias. At present, however, it can be said that the preparation is one of great promise which may completely supplant liver extract as a therapeutic agent, especially in those patients who are allergic to liver preparations. Its mode of action is concerned with accelerating the development of the immature red blood cells in the bone marrow and perhaps with the metabolism of nucleic acid in these cells.

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EFFECT OF RADIOACTIVE ELEMENTS AND "DEMA"

Radiophosphorus, which loses one half of its output of beta radiation every fourteen and three-tenths days, is effective in the treatment of polycythemia vera when given intravenously or orally as sodium acid phosphate, in doses of 5 to 10 millicuries. Either spray roentgen ray therapy or radiophosphorus when given alone or in the initial stages of treatment in combination with phlebotomy reduces the red blood cell count to normal. It may be held at this level by the application of either one of these agents at intervals of six months to a year or more. These forms of treatment are undoubtedly the most effective ones for the disease. No claim can be substantiated, however, that radioactive elements at present can produce superior results to roentgen therapy either in leukemia or in the lymphoblastomas.

The use of "Dema," one of the nitrogen mustards, with the formula bis (chloroethyl) methylamine hydrochloride, is still in the experimental stage as a form of treatment for Hodgkin's disease, leukemia, and polycythemia vera. The action of this substance is similar to that of roentgen rays. It has extremely serious toxic effects on the peripheral blood and the bone marrow, but when carefully controlled may prove to be a useful form of therapy for patients with these disorders who become resistant to the roentgen ray.

STUDIES ON BLOOD PLASMA

Extensive use in the last war has demonstrated that plasma may be preserved indefinitely by freezing and dehydration without important changes and when needed can be reconstituted and injected intravenously with gratifying results in the treatment of shock. The remarkable advances in the chemical fractionation of the blood plasma, largely through the work of Cohn, are too comprehensive to discuss in detail. This investigator and his associates have demonstrated that the various components of the plasma can be separated in five main types chemically, and specific functions have

been ascribed to each of them. These are concerned primarily with the maintenance of fluid balance between the blood and the tissues of the body and hence are closely related to shock and formation of edema; with immunity to such diseases as measles and infectious hepatitis; with the isoagglutinins responsible for the blood types; with the various components of the clotting mechanism; with the antihemophilic globulin; with the maintenance of normal blood pressure and perhaps with the production of hypertension; with various enzymes and proteins, and with the group of lipoproteins which undoubtedly play an important role in various essential functions of the body.

THE RH FACTOR

The discovery of the Rh factor in 1940 by Landsteiner and Wiener has provided an explanation for certain hitherto obscure hemolytic reactions to blood transfusions and made clear the etiology of almost all cases of erythroblastosis fetalis, a commonly fatal hemolytic anemia of the newborn or of the fetus in utero. The practical implications are that the 15 per cent of the population who are Rh negative should never receive transfusions of other than Rh-negative blood if severe and sometimes fatal reactions are to be avoided; and that an Rh-negative woman who is impregnated by a Rh-positive man has 1 in 25 chances, or less, after the first pregnancy, of bearing a child with erythroblastosis fetalis. If the complications are to be avoided, it is imperative to determine the Rh type of all persons, male or female, who are to receive a blood transfusion, and of all women who are pregnant. An Rh-negative person should always receive Rh-negative blood as a transfusion.

VITAMIN K AND HEMORRHAGE

The observation that a hemorrhagic tendency may be due to a deficiency in prothrombin, one of the essential components of the clotting process, is of clinical importance. This deficiency is the cause of the hemorrhagic condition associated with obstructive jaundice, with hemorrhagic disease of the newborn, with certain states which interfere with intestinal absorption, such as sprue and ulcerative colitis, and with extensive hepatic disease. It is now well established that prothrombin cannot be formed by the liver unless vitamin K is present. The administration of vitamin K to the pregnant woman in the form of menadione, in doses of 2 mg. daily, during the last week of pregnancy will prevent hemorrhagic disease of the newborn due to hypoprothrombinemia. Of great importance also is that the parenteral administration of vitamin K preparations will eliminate the bleeding tendency associated with obstructive jaundice and thereby remove the extra hazard to surgical treatment of patients with this condition. In general it may be stated that the administration of vitamin K preparations, especially when the preparations are given parenterally, will control the hemorrhagic state due to hypoprothrombinemia in all conditions except that associated with hepatic disease.

DIAGNOSTIC VALUE OF STERNAL PUNCTURE

Information obtained from sternal puncture confirms the diagnosis in two thirds of the patients with hematologic disorders and presents a specific picture in about 1 of 6 such patients. In the latter group are patients with multiple myeloma, leukemia, addisonian pernicious anemia and allied conditions, agranulocytosis, lipoid histiocytosis and various parasitic diseases such as malaria and leishmaniasis. Useful information is obtained in polycythemia and hypochromic, aplastic, hemolytic and myelophthisic anemias. There are two points for emphasis: 1. Positive are more reliable than negative findings. 2. An experienced observer must interpret the findings.

THE BLOOD BANK

The undoubted value of the blood bank has been established in the past few years. It should be a part of the equipment of every hospital. Two main advantages result from a well conducted system for the storage of citrated blood. In the first place, it provides an almost unlimited amount of tested, typed blood which can be stored for at least seven days and which is immediately available for use. Second, it reduces materially the cost of blood transfusions to the patient. This means that many patients can be given multiple transfusions which otherwise might not be available. With the ease that blood may be secured for this purpose, it should be kept in mind that adult males without bleeding may develop hemochromatosis following multiple transfusions. This results from the inability of such patients to excrete iron once it has been injected into the vascular system.

CONTROL OF ANEMIAS OF PREGNANCY

It has been demonstrated in recent years that a macrocytic or microcytic anemia of pregnancy, more severe than the physiologic anemia of that state, occurs in from 20 to 30 per cent of all gravid women. Furthermore, it should be emphasized that such anemias can be controlled or prevented in a great majority of instances if the patient is given 5 grains (325 mg.) of ferrous sulfate three times daily and partakes of a general average diet containing an adequate amount of protein, the minimum being provided by one serving of lean meat, a quart of milk and an egg daily. For the sake of the mother and the child, such simple, harmless and efficient measures should be instituted universally as soon as a pregnancy is recognized and should be continued throughout lactation.

Occasionally certain nutritional macrocytic anemias, sometimes associated with pregnancy, are refractory to refined preparations of liver when given parenterally. They respond favorably, however, to the oral administration of liver extract. The practical importance and the etiologic implications of this observation have been emphasized recently by Watson and Castle.

STUDIES ON AGRANULOCYTOSIS

Agranulocytosis is probably always due to sensitivity to a drug, the most common causative agents being aminopyrine, the sulfonamide compounds, arsenic and antithyroid drugs such as thiouracil. The syndrome develops in only a small percentage of the patients receiving these preparations, however. The mortality among untreated patients exceeds 50 per cent. Early elimination of the responsible drug and the prompt administration of penicillin in doses of 40,000 units every two hours, intramuscularly, should reduce the mortality rate almost to zero.

TROPICAL MEDICINE

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The year 1939 may be regarded as the beginning of the modern era in the prevention and treatment of diseases which are particularly prevalent in warm climates. Previous to this time effective immunization was available against typhoid and the paratyphoid fevers, smallpox, tetanus, spotted fever and yellow fever, while immunization against plague and cholera had as yet not been critically evaluated. Quinacrine (Atabrine) had been demonstrated to be therapeutically a good substitute for quinine, and there were moderately satisfactory drugs for the treatment of amebic dysentery, yaws, relapsing fever, schistosomiasis, hookworm disease, African trypanosomiasis and kala-azar. Pyrethrum and rotenone were recognized as good insecticides. Yet five hundred million human beings were suffering from malaria each year; typhus, plague and cholera were killing hundreds of thousands annually, and other common tropical diseases were taking a heavy toll.

Increased communication with the tropics, particularly by air transport, was providing accelerated stimulus to control diseases in these hyperendemic areas, since they were retarding commercial development and conceivably might be imported into relatively clean communities in America and Europe. The problem of protecting health and even life itself became more imperative when World War II compelled the training of troops and the carrying out of military operations in practically all parts of the globe where tropical diseases were prevalent. Intensive, intelligent cooperation in experimental research between military and civilian groups in the United States and the British Commonwealth, as well as courageous clinical investigation, on a scale previously unconceived, made possible the rapid strides which have taken place in the prevention and treatment of tropical diseases.

PATHOGENESIS AND SYMPTOMATOLOGY

Investigation on the pathogenesis of many diseases has provided a clearer interpretation of their symptoms, particularly during the incubation and early clinical stages. Bancroft's filariasis, schistosomiasis, scrub typhus and Bullis fever have afforded abundant material for clinical study, while sandfly fever has been observed after both natural and experimental exposure of substantial groups of persons.

DIAGNOSIS

Concentration technics have been improved for the more certain recovery of Schistosoma eggs from patients' excreta and of microfilariae from blood and other fluids of the body. Species-specific serologic and immunologic methods have been perfected for the diagnosis of epidemic and murine typhus, spotted fever, scrub typhus, Q fever, amebiasis, bartonellosis, kala-azar, oriental sore, espundia and Chagas' disease, while better group-specific antigens have been developed for the diagnosis of Bancroft's filariasis, onchocercosis and schistosomiasis.

IMMUNIZATION

In plague the Haffkine type of vaccine has been improved so as to confer protection on fourfold as many persons as among the uninoculated, while the Otten type of vaccine, employing avirulent living Pasteurella pestis, has been demonstrated to provide 80 to 90 per cent protection among several millions inoculated in Java, South Africa and Madagascar. By the selection of highly virulent strains of cholera vibrios, vaccines have been prepared and administered to hundreds of thousands of persons in Burma and India, with evidence of about 90 per cent protection in comparison with high susceptibility to the disease observed among uninoculated controls. Immunization against typhus with the Cox egg yolk sac vaccine and the Castañeda mouse lung vaccine has greatly reduced infection among exposed persons and has reduced mortality among the immunized almost to the vanishing point. There is now the prospect of satisfactory immunization against scrub typhus, dengue fever, and possibly sandfly fever.

TREATMENT

1. *Antimalarials.*—Quinacrine has been demonstrated to be not only an eminently satisfactory substitute for quinine in the treatment of clinical malaria, but in daily doses of 1.5 grains (0.1 Gm.) is known to provide almost solid suppression of the disease for persons in highly malarious areas. Although this drug will not prevent the breaking through of vivax infection subsequent to the cessation of suppressive treatment, it almost invariably eradicates the falciparum parasite, thus controlling the most widespread and most commonly dangerous disease in the tropics.

Two new antimalarials, chloroquine (7-chloro-4-[4-diethylamino-1-methylbutylamino] quinoline) and paludrine (N_1-para-chlorophenyl-N_5-isopropylbiguanide acetate) will soon be available commercially for clinical use, after long experimental and preliminary clinical tests. In the United States alone more than fourteen thousand natural and synthetic substances have been tested as potential plasmodicides, with clinical study on eighty of the most promising. Chloroquine ("Aralen," Winthrop Chemical Company, Inc.) has been found to be superior to quinacrine in several respects: It produces less gastrointestinal irritation, apparently causes no psychotic disturbances, leaves no discoloration of the skin and in therapeutic doses is well tolerated and highly effective in producing more rapid symptomatic relief, fewer relapses and longer periods between relapses in vivax infection. A full course of treatment consists in the oral administration of 9 grains (0.6 Gm.) the first day and 4.5 grains (0.3 Gm.) on the three following days. For suppressive therapy one 4.5 grain tablet each week is apparently adequate to prevent a clinical break-through. Paludrine (Imperial Chemical Industries, Ltd.) has not as yet received as thorough clinical testing as chloroquine but promises to be considerably better than quinacrine.

Thus far, no antimalarial has been discovered which has been proved to be a true prophylactic, although a plasmoquin derivative now under clinical study may possibly serve this end.

As a corollary to advances in specific antimalarials, the recent recognition of algid malaria as a variety of medical shock, in which there is pronounced dilatation of the smaller blood vessels, suggests a rationale for successful management of a patient with this type of malaria.

2. *Leishmanicidal Drugs.*—Antimony and potassium tartrate (tartar emetic) was the first drug to be used

successfully in the treatment of leishmaniasis (mucocutaneous variety). It soon became the drug of choice in kala-azar (visceral leishmaniasis), although the less stable antimony and sodium tartrate (B. P.), when freshly prepared, is equally effective and is better tolerated. Since 1915 several synthetic pentavalent antimonials have been given careful clinical trial (Stibenyl [the sodium salt of acetyl-*p*-aminophenylstibinic acid], Stibosan [sodium meta-chloro-para-acetylaminophenylstibinate], Neostam [stibamide glucoside], Urea Stibamine, Aminostiburea, Neostibosan, Distibinyl and solustibosan). Of this group Urea Stibamine (the carbamide salt of para-amino-phenyl-stibinic acid) and Neostibosan (diethylamino-*p*-amino-phenyl stibinate) have become standard prescriptions. More recently solustibosan (sodium antimonyl gluconate; Bayer 561; "Stibanose," Winthrop Chemical Company, Inc.; "Stibatin," Glaxo Laboratories) has been tested both in experimentally infected golden hamsters and in clinical cases and has proved to be as highly effective and as well tolerated as Urea Stibamine and Neostibosan.

In the Egyptian Sudan a severe type of kala-azar has frequently been refractive to pentavalent antimonials, while cases of antimony-resistant kala-azar are not uncommon in China, India and other endemic foci. The aromatic diamidines, particularly Stilbamidine, Pentamidine and Propamidine, are useful in these cases. Both in experimental tests and in the clinic, Stilbamidine (4,4′ diamidino stilbene) has been demonstrated to be therapeutically the equal of Neostibosan in the average case of visceral leishmaniasis and to be curative in antimony-resistant infections. Because of the high toxicity of the aromatic diamidines, great caution must be exercised in their administration.

3. *Trypanosomicidal Drugs.*—Although continued clinical study has been made of new arsenicals and other drugs in the treatment of African trypanosomiasis, nothing has been found which promises to supplant tryparsamide (Merck) or suramin sodium (Bayer 205; Naphuride, Winthrop Chemical Company, Inc.). However, the aromatic diamidines, especially Pentamidine (4,4′-[pentamethylenedioxy]dibenzamidine), Stilbamidine and propamidine (4,4′-[trimethylenedioxy] dibenzamidine), which were synthesized with the hope that they would be curative in human trypanosomiasis, have been found to produce cures in cases of early disease and thus may prove to be helpful substitutes in arsenic-fast infections or those with severe optic neuritis. Moreover, in highly endemic areas Bayer 205 has been employed prophylactically, and a single administration of 1 Gm. provides trypanosome-free blood for as long as four months.

4. *Antiamebic Drugs.*—In a recent critique on the treatment of amebiasis, a distinguished British investigator has reached the conclusion that no antiamebic drug thus far employed is "infallible in sterilizing a gut infection of E. histolytica, though there is evidence that each of them may contribute something to this end."

Emetine hydrochloride (U. S. P.) is the only drug known to eradicate extraintestinal amebiasis. It is likewise useful in controlling acute amebic dysentery, but in a high percentage of cases is not curative. The parasites tend to become resistant to this drug and perhaps even to other drugs now used in the treatment of amebiasis. Because of these effects and because of its high toxic factor, the use of emetine hydrochloride should be restricted in intestinal amebiasis to a minimum number of injections required to reduce severe symptoms, and the drug should never be employed in the treatment of mild or asymptomatic infections. Emetine bismuth iodide (B. P.) has been used for oral administration in amebic colitis and is regarded by British physicians as superior to most other drugs for this purpose.

Arsenicals: When acetarsone (Stovarsol; acetylaminohydroxyphenylarsonic acid) was introduced by French workers for the treatment of amebiasis, it proved to be a useful alternative to ipecac and emetine. More recently it has been supplanted by carbarsone (U. S. P.) (4-carbamino-phenyl arsonic acid), which is probably equally effective and is much better tolerated. In dogs acutely ill from experimental infection with human strains of Endameba histolytica carbarsone has been found to exhibit a 75 per cent rate of cure and in monkeys a 42 per cent rate. Recent tests with carbarsone oxide (*p*-carbamino-phenyl arsenous oxide) on amebiasis in monkeys and in a few clinical cases have demonstrated that it is potentially a promising amebicide. Other types of antiamebic drugs must be employed in the treatment of those persons who manifest intolerance of arsenic.

Compounds of Iodine: In 1921 chiniofon (U. S. P.) (iodoxyquinoline sulfonic acid) was introduced clinically for the treatment of amebiasis, under the German name "Yatren," and was found to be highly effective in cases of acute as well as of chronic amebic colitis. Its oral administration has been frequently supplemented by high retention enemas of solution of chiniofon. Both in experimentally infected dogs and in human infections its rate of cure is high (dogs, 100 per cent; human beings, about 90 per cent). It is well tolerated except for the production of a watery stool in some cases, but this is not necessarily a contraindication to its continued use unless the patient is severely dehydrated. Vioform (U. S. P.) (iodo-chlorohydroxyquinoline) was first advocated as a specific for the treatment of amebiasis in 1933. It has a high amebicidal rate both in experimental animals (monkeys, 87.5 per cent) and in human beings. Its clinical usefulness has probably not been sufficiently emphasized. A third compound, diodoquin (N. N. R.; G. D. Searle & Co.) (5,7-diodo-8-hydroxyquinoline), has more recently been given extensive clinical use. Although it has a higher iodine content than chiniofon and vioform, it is absorbed from the wall of the bowel much more slowly. Its action is correspondingly slower, so that three weeks instead of five to seven days are required for a full course of treatment. Physicians who have given this drug thorough trial rate it between 85 and 99 per cent curative. It has essentially no contraindications.

A great deal of recent effort has been given to the isolation of certain active fractions of chaparro amargoso (Castela nicholsoni texana), the Mexican medicinal plant which empirically has been found to have antiamebic properties. The results are not yet sufficiently advanced for critical evaluation.

5. *Schistosomicidal Drugs.*—Effective treatment for schistosomiasis began in 1918 with the use of antimony and potassium tartrate, U. S. P. (tartar emetic). This drug was partially supplanted in 1929 by the trivalent antimonial, fuadin (sodium antimony III bis-catechol-

2,4 disulfonate) (stibophen B. P.), which is administered intramuscularly instead of intravenously and is on the whole better tolerated. A few years later (1936) Anthiomaline (antimony and lithium thiomalate) was introduced by French investigators for treatment of schistosomiasis. Experimentally and in a few clinical cases the pentavalent Neostibosan has also been tested. In animals all these drugs have appreciable effect on Schistosoma mansoni, but none of them clears the infection. Clinically fuadin has a high relapse rate (70 per cent) in schistosomiasis japonica following a schedule of treatment employing 0.566 Gm. of metallic antimony (which is considerably more than the recommended dose), while antimony and potassium tartrate, administered as a 0.5 per cent solution and totaling approximately the same amount of antimony (0.565 Gm.), has provided the impressively lower relapse rate of 16 per cent. Both experimentally and in the hands of some physicians with patients having schistosomiasis Anthiomaline has failed to sustain its previous reputation, but other physicians regard it with confidence.

It is important to remember that antimony therapy is highly toxic for the liver, as indicated by increased elevation of the icteric index with successive courses of treatment.

Clinical investigators in South and West Africa have treated vesical and Manson's schistosomiasis by intensive administration of antimony. One series of 100 patients has been given antimony and sodium tartrate, 1.5 per cent solution in saline and dextrose solution, at 9 a. m., noon and 3 p. m. on two consecutive days, for a total dosage of 12 mg. per kilogram of body weight. Few side effects were encountered, and three months later Schistosoma eggs were not found in urine or stool. In another series (46 cases) fuadin (stibophen B. P.) was administered in the amount of 0.46 grain (30 mg.) daily for two weeks (omitting Sundays), and Anthiomaline (May and Baker), in the amount of 0.49 grain (31.9 mg.) daily for the same period of time. Only 4 members of this group were considered not cured.

New drugs with considerably better promise than antimonials for the cure of schistosomiasis are still under experimental trial. These include certain aminoanthraquinones and phenothiazines, which provide 60 to 90 per cent clearance of the worms in seven days, with 100 per cent survival of the experimental hosts. Only one newly tested antimonial has thus far shown as satisfactory results.

In general, it is important to note that S. japonicum infection, the most serious type of human schistosomiasis, is the most difficult to eradicate.

6. *Filaricidal Drugs.*—Intensive experimental and clinical tests with several antimonials and arsenicals, as well as other preparations, have failed to demonstrate direct lethal action on the parent worms in cases of Bancroft's filariasis. However, there is some evidence that a sustained reduction in the number of circulating microfilariae and their complete elimination in peripheral blood over a period of time indicate bona fide filaricidal as well as filaristatic activity. Fortunately the great majority of American military personnel who showed early manifestations of the disease following exposure in the South Pacific area have recovered without the appearance of chronic lesions.

7. *Anthelmintics for Intestinal Helminthiases.*—No new drugs have been introduced within recent years. Crystoids anthelmintic (a pill containing hexylresorcinol) is satisfactory for treating ascariasis and is helpful in removing hookworms. Tetrachlorethylene (U. S. P.) is commonly indicated for hookworm infection but has not been particularly successful in the Southwest Pacific where Ancylostoma duodenale as well as Necator americanus were encountered. Gentian violet medicinal (U. S. P.) is the drug of choice for strongyloidiasis (coated with one and one-half hour Seal-Ins) and for oxyuriasis (coated with four hour Seal-Ins or Enseals). Oleoresin of aspidium (U. S. P.), fresh, is first choice and carbon tetrachloride (U. S. P.) second choice for tapeworm infections.

8. *Antirickettsial Therapy.*—For clinical treatment in the typhus group of diseases considerable success has been achieved by the use of immune serum early in the disease. More recently, however, para-aminobenzoic acid has been demonstrated to be relatively specific when administered during the first week following the onset. This therapy has been employed in epidemic typhus, spotted fever and scrub typhus (tsutsugamushi disease). The drug is administered orally in powder form, partly neutralized by sodium bicarbonate to lessen gastric acidity. In order to maintain an average blood plasma level of 30 to 60 mg. per hundred cubic centimeters an initial dose of 8 Gm. is followed by doses of 3 Gm. every two hours. The results consist of (1) decrease in about twenty-four hours and relatively rapid disappearance of toxic manifestations; (2) drop in temperature in about two days; (3) reduction in complications, as bronchitis, pneumonitis, myocarditis and hemorrhage; (4) minimal leukopenia and granulocytopenia; (5) shortening of the period of convalescence, and (6) a practical guarantee that fatalities can be eliminated.

9. *Sulfonamide Therapy.*—The sulfonamide drugs have produced satisfactory results when employed in bacillary dysentery, cholera and plague.

In bacillary dysentery treatment with sulfonamide compounds is particularly effective in the acute condition but is also valuable in chronic disease and for carriers. Sulfanilamide, sulfaguanidine and sulfapyridine have the lowest shigellicide ratings. Succinylsulfathiazole (Sulfasuxidine) and phthalyl sulfathiazole (Sulfathalidine), as well as sulfanilyl benzamide, are all well tolerated and clinically effective. Sulfanilyl benzamide apparently has low toxicity and is highly absorbable. Sulfathiazole and sulfanilyl benzamide are particularly useful against the Sonné type of the disease. Sulfadiazine has been found to be the most efficient clinically and is more effective than other sulfonamide compounds in eliminating Flexner type organisms in carriers. It may be advisable to give sulfadiazine prophylactically during epidemics. However, during epidemics of bacillary dysentery (Flexner types), evidence has been produced that the organisms become sulfonamide-fast.

Sulfonamide drugs are contraindicated for complicating infections in the typhus group of fevers when para-aminobenzoic acid is being administered.

In cholera considerable success has attended the combined administration of blood plasma to combat shock and sulfonamide drugs. Sulfaguanidine is pos-

sibly somewhat superior to sulfapyridine and sulfathiazole; moreover, if administered at the onset of the disease, sulfadiazine plus plasma may be depended on to be 100 per cent effective in assuring recovery of the patient. In Indian villages in cases of untreated cholera fatality ranges from 40 to 70 per cent. Patients who are hospitalized and are given isotonic solution of sodium chloride and supportive treatment average about 15 per cent mortality. Treatment with isotonic solution of sodium chloride and sulfonamide drugs reduces the rate to 2 per cent. Previous cholera vaccination within ten to twelve months provides about 90 per cent protection and lessens the severity of the disease for those who contract it.

In plague, immune serum and sulfonamide drugs have greatly reduced the expected mortality. In field tests at Latur in Bihar State, India, the death rate was 53.6 per cent in 149 controls (all types) as contrasted with 23.5 per cent in 157 persons treated with immune serum, 27.0 per cent in 122 persons treated with sulfapyridine, 20.8 per cent in 230 persons treated with sulfathiazole cases and 20.0 per cent in 60 persons treated with sulfathiazole plus antiserum. The comparable mortality percentages for patients with severe septicemia were: 96.4 (56 patients), 69.0 (42 patients), 72.2 (36 patients), 55.1 (65 patients) and 38.1 (21 patients). All cases of pneumonic plague had a fatal termination irrespective of therapy. In a 1944 epidemic in Karnal, United Provinces, India, 80 per cent of persons not treated died, and 21 per cent of those given sulfathiazole. It was found that with sulfonamide therapy the prognosis is good if treatment is begun on the first day of illness and is continued for a week to ten days without interruption. Fatalities invariably were due to beginning the treatment late and to incomplete or interrupted treatment. In primary bubonic plague, with appropriate sulfonamide therapy undertaken at the onset of the disease, the prognosis is excellent. Vaccinated persons who are exposed and acquire the disease may not survive if they are not adequately treated.

10. *Penicillin Therapy.*—Penicillin has proved to be specific for the common tropical spirochetal diseases, yaws (frambesia), pinta and relapsing fever, as well as leptospirosis. It thus provides a valuable alternative for the treatment of persons whose disease is arsenic-fast or who cannot tolerate arsenic. This antibiotic is also valuable as an adjuvant in combating certain complications in the typhus group of diseases, when sulfonamide compounds are contraindicated because they neutralize the action of para-aminobenzoic acid. Finally, penicillin has been found useful in reducing certain intestinal bacteria and in indirectly simplifying the treatment of amebic colitis.

Penicillin is not specifically effective in human or avian malaria, amebiasis, bacillary dysentery, cholera, plague, the typhus group of diseases, leishmaniasis, trypanosomiasis or helminthic infections.

INSECTICIDES AND REPELLENTS; RATICIDES

Insecticides.—With the outbreak of World War II the military needs for dependable insecticides pyramided to fantastic proportions. In medical entomology there was need for larvicides to control the breeding of malarial, filarial, dengue and yellow fever mosquitoes, as well as to combat louse infestation. Oiling of breeding places and treatment with paris green were moderately effective in controlling mosquito breeding, and pyrethrum sprays were relatively satisfactory in killing adult mosquitoes. The pyrethrum aerosol bomb provided definite improvement in the use of pyrethrum for individual use in military groups stationed in highly endemic areas of malaria. Then supplies of pyrethrum from the Near East and Japan were cut off. Fortunately a German insecticide with a Swiss patent, which was originally designed for agricultural entomology, was found to be highly effective in killing larval and adult mosquitoes, filth flies and body lice, and relatively helpful in reducing exposure to diseases transmitted by fleas and ticks. This chemical is dichlorodiphenyltrichloroethane, familiarly known as DDT. Once its usefulness for the control of arthropods of medical importance had become established it was manufactured in the United States by the millions of pounds.

DDT has been an important agent in reducing malaria among troops in the Southwest and Western Pacific theaters; in reducing the hazard of enteric diseases which are carried by filth flies, as in Manila after American reoccupation, and in bringing to a rapid termination mass epidemics of typhus and of louse-borne relapsing fever which threatened the civilian populations of Naples and other cities in the Mediterranean area. More recently DDT has been demonstrated to be rapidly lethal to adult sandflies, thus providing a practical method for eliminating exposure to kala-azar, Oriental sore, espundia, bartonellosis and sandfly fever. Its effect is on the peripheral nerve endings of insects which make direct surface contact with it. If ordinary precautions are taken, DDT is relatively harmless to higher animals and human beings.

Even more effective insecticides will soon be commercially available. These include dichlorodiphenyldichloroethane (TDE) (Rhothane), which is not more than one fourth as toxic to warm-blooded animals as is DDT but is more toxic, on immediate contact, to mosquito larvae and has more prolonged effect; and beta-butoxy-betá-thiocyano-diethyl ether (Lethane 384), which is safe and highly effective for household disinfestation against mosquitoes, flies, fleas, cockroaches, bedbugs, clothes moths and weevils.

Repellents.—Dimethyl phthalate has been developed for rubbing on exposed skin to repel mosquitoes. It produces no dermatitis and its action lasts for several hours. Dimethyl phthalate, dibutyl phthalate and particularly benzyl benzoate have been emulsified in various detergents to impregnate clothing, so as to prevent infestation with chiggers which transmit scrub typhus and to reduce the hazard of invasion of the skin with the cercariae of Schistosoma when one is wading in infested water in endemic areas. After several washings with strong laundry soap benzyl benzoate impregnation will retain its repellent action for mites and its lethal action for schistosome cercariae. This same drug has been demonstrated to be effective in the treatment of scabies.

Raticide.—Sodium fluoroacetate has been field tested and found to be highly poisonous to rats when mixed with bait to which domestic and wharf rats have access. It is reported to be superior to red squill, barium carbonate, thallium sulfate and arsenic trioxide, but is highly toxic for domestic animals and man.

SUMMARY

Since 1939 important developments have taken place in the field of tropical medicine. This has resulted in part from accelerated commercial contact with tropical countries but is due in an even greater degree to military needs of World War II. Much has been learned about the pathogenesis of disease, particularly Bancroft's filariasis, schistosomiasis, scrub typhus, Bullis fever and sandfly fever. Valued aids have been perfected for the diagnosis of schistosomiasis, filariasis, the typhus group of diseases, amebiasis, bartonellosis, kala-azar, oriental sore, espundia and Chagas' disease. Effective immunization has been developed for typhus, while plague and cholera vaccines have been improved. Protective vaccines for scrub typhus, dengue and possibly sandfly fever may soon be developed.

In the realm of therapy the claims for quinacrine hydrochloride as a good antimalarial have been amply demonstrated. This drug is not only the equal of quinine in the treatment of clinical malaria but has proved to be highly satisfactory as a suppressive agent. Of the thousands of natural and synthetic substances which have been tested as potential plasmodicides, two, chloroquine (7-chloro-4-[4-diethylamino-1-methylbutylamino] quinoline) and paludrine (N_1-para-chlorophenyl-N_5-isopropylbiguanide actetate) will soon be available commercially. Both of these promise to be superior to quinacrine. Solustibosan (sodium antimonyl gluconate) and Stilbamidine (4,4'-diamidino stilbene) are new drugs which are effective in the treatment of kala-azar. Suramin sodium (Naphuride; Bayer 205) has been found useful as a prophylactic in African sleeping sickness. No new amebicidal drug has been developed since 1936, when diodoquin was introduced. While antimony and potassium tartrate is still the best available therapeutic drug for schistosomiasis, experimental studies indicate the possibility that another antimonial and certain amino-anthraquinones and phenothiazines have more specific action against schistosomes. No eminently satisfactory treatment has been developed for filariasis and no new drugs have been discovered for the intestinal helminthiases.

Para-aminobenzoic acid has proved to be relatively specific in the treatment of the typhus group of diseases, while sulfonamide drugs have been found to be useful in bacillary dysentery and plague, and 100 per cent effective in cholera when administered together with plasma. Penicillin is specific in yaws, pinta, relapsing fever and leptospirosis.

On the preventive side the discovery that DDT is an effective insecticide against mosquitoes, filth flies, lice and other arthropod transmitters of diseases has made possible the rapid control of malaria, filariasis, dengue, enteric diseases transmitted by filth flies, and typhus and relapsing fever contracted as a result of louse infestation. New, more powerful insecticides are on the horizon. Dimethyl phthalate, dibutyl phthalate and benzyl benzoate have proved to be highly effective repellents in warding off mosquito-transmitted diseases, and when impregnated in clothing greatly reduce exposure to scrub typhus and schistosomiasis. Finally, sodium fluoroacetate has been demonstrated to be superior to other poisons for eradicating domestic and wharf rats.

INFECTIOUS DISEASE

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Needless to say, most of what is new in the treatment of infectious diseases revolves about antibiotic agents. So rapid has progress been made that sulfonamide compounds are now regarded as old fashioned in the treatment of certain diseases and immune serums are nearly obsolete. Not only are the benefits of penicillin and sulfonamide compounds reflected in the great reduction of the morbidity and mortality rates of diseases caused by bacteria sensitive to these agents, but there has also been a decline in the mortality of degenerative diseases due to the control of intercurrent infections. It is safe to predict a further decline in the years to come in the incidence of chronic cardiovascular-renal and other degenerative diseases which often originate from or are incited by infections, particularly those caused by hemolytic streptococci.

There is, unfortunately, an obverse side to a medal. It has been estimated that 80 per cent of penicillin is now wasted for the following reasons: (1) It is used for diseases in which it is known to have no effect; (2) fever is often the only indication for its use; (3) dosage is often either too small or too interrupted, or too large or given longer than is needed; (4) oral therapy requires two to four times the amount needed for parenteral therapy, and (5) it is used as a prophylactic too often in the absence of evidence of its usefulness for this purpose. While these abuses are not in themselves serious except for occasional untoward effects, economic waste and their contribution to repeated recent shortages, a possible far more serious aspect must be considered. It has been predicted that the widespread use of penicillin will gradually induce penicillin-resistant bacteria to arise which after several years will cancel its curative effect. This has already occurred among certain hemolytic streptococci and gonococci as regards sulfonamide therapy and prophylaxis. Another seldom discussed problem of wide social implication is the moral effect of the knowledge that certain venereal diseases can be easily cured. It is also hoped that physicians will resist the commercial exploitation of penicillin under various proprietary names and in various unnecessary vehicles.

The greatest success of penicillin therapy has been attained in the treatment of infection caused by pneumococci, streptococci, staphylococci, gonococci and meningococci. It is of value in the treatment of early syphilis, but further study is needed before the eventual outcome can be judged. At present, parenteral, oral and topical routes of therapy are fairly well understood and are preferred. Until further experience has accrued, intrathecal therapy and the inhalation of nebulized penicillin must be regarded as in the experimental stage. It is now known that commercial penicillin is not a single substance but a mixture of at least four substances, called G, X, F and K. Since some are more active than others, intensive research is under way to provide a product containing constant amounts of the effective fractions.

Streptomycin has not given the good results at first expected from it. Although it is theoretically specific for typhoid and brucellosis, actual experience has been discouraging. It is of value in the treatment of patients with tularemia, with certain infections caused by Pfeiffer's bacilli, or with certain infections of the urinary

tract, and to clear the bowel temporarily of streptomycin-sensitive bacteria. Studies of its effects on tuberculosis, plague and other diseases are not advanced enough to draw conclusions. Various strains of bacteria, even of those of a single species, vary greatly in their resistance to streptomycin, and in some instances sensitive strains develop resistance with great rapidity.

Further studies on the therapy of acute rheumatic fever casts doubt on the value of massive doses of salicylate drugs recently recommended. Large dosage often causes toxic effects and even fatal results without influencing the actual infection more than the dosages of 8 to 12 Gm. daily, as heretofore used. Evidence of infection may even develop during therapy. Symptomatic relief is the most that can be expected.

Many other new developments in the field of infectious diseases pertaining to aspects other than therapy are discussed elsewhere.[1] Progress in the treatment of arthritis, exotic diseases and in infections caused by viruses is discussed by other members of this panel.

GASTROENTEROLOGY

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Probably the most interesting question in the minds of gastroenterologists today is whether double vagotomy well above the cardia, with or without gastroenterostomy or partial gastric resection, constitutes the long looked-for perfect operation for peptic ulcer.

Whatever happens, the medical profession will long owe Lester Dragstedt a debt of gratitude for having given this operation a good trial. This required courage, because the results of cutting both vagus nerves in animals and one vagus nerve in man had not been encouraging to those who wished to use this procedure in the treatment of peptic ulcer.

In the last three years some two hundred double vagotomies have been performed, and in almost all cases so far reported the results have been encouraging. Usually the pain and discomfort have promptly stopped, and the ulcer has apparently healed. I have heard of only 1 case in which the pain continued unchanged, and it may be that in that case the nerves were not all cut. Apparently if only a few fibers are left—and they can easily be left—the results can be nil.

It is hard to say why the good results are obtained so promptly and consistently, because in a considerable percentage of cases the gastric acidity is not done away with and in some it has not even been altered. In other cases in which it was at first diminished it soon returned to normal or above. Apparently the particularly harmful night secretion is usually diminished in amount. In most cases the gastric glands continue to respond normally to stimulation by histamine.

It is hard to say why the pain goes so promptly. The fact that in a few cases the putting into the stomach of some 0.5 per cent solution of hydrochloric acid no longer caused pain suggested some diminution in sensitivity of the mucosa, but the fact that the blowing up of a balloon in the esophagus or stomach or duodenum still produced pain and the fact that an intestinal obstruction after vagotomy caused much pain showed, as was to be expected, that the sensory pathways had not been interrupted. After the operation hunger and nausea can still be felt and the gallbladder continues to function normally. The patients tend to gain in weight.

All this is most encouraging. The questions that most need answers are whether the operation is safe, whether there are any serious drawbacks or contraindications and whether the good results will be permanent.

The main difficulty encountered so far, as reported by a number of observers at the May meeting of the American Gastro-Enterologic Association, is the failure of the stomach to empty properly after the operation. A six hour retention of all food and even failures to empty in twenty-four hours are common. Because of this, surgical interns are sometimes kept busy washing out a patient's stomach, and in some cases the surgeon has felt compelled to operate again and perform gastroenterostomy. In some cases at reoperation a dilated paralytic segment of bowel has been found. As yet no drugs have been found which will relieve this stasis. Naturally, the patient often feels full, but the fact that he gains in weight shows that eventually the food goes through into the bowel. Most patients are troubled for a while by diarrhea, but in most cases it soon disappears. This symptom may be associated with distress in the lower part of the abdomen.

A big simplification in the technic of the operation was made by Dragstedt when he found that he could cut the cardia away from the diaphragmatic hiatus, pull down the esophagus, cut the vagi and then, after letting the esophagus slip back up, sew the edges of the hiatus close to the cardia again.

Certainly every one will watch the results of this new operation with great interest. Perhaps it does what is so much needed in cases of ulcer, and that is to interrupt pathways which carry to the upper part of the digestive tract harmful influences that arise in the brain.

Every war brings to the fore a new disease, and in World War II this was infectious hepatitis. It occurred in epidemics and caused much disability. It appears to be produced by two viruses which unfortunately are highly resistant to disinfecting agents. The period of incubation is remarkably long—in one type of case from twenty to thirty-five days, in another type from sixty to one hundred and twenty days. Partly as a result of this long period of incubation and partly because of the existence of carriers many men got the disease by means of a transfusion or even when a contaminated hypodermic needle was used. Some epidemics were caused by a water-borne virus. If only because of the frequency with which transfusions are now given, we physicians will probably long be plagued by epidemic hepatitis.

Perhaps for a while we shall do well to study the function of the liver in puzzling cases of indigestion and especially those in which there is much soreness and aching in the right upper quadrant of the abdomen.

The situation in regard to gastritis seems to be clarifying, and there is now less excitement about the superficial and atrophic types. Some authorities are pointing out that many of the minor changes seen in the mucosa may be transient and unimportant, like those seen in Alexis St. Martin and in Tom who was studied by Wolf and Wolff. The atrophic type probably often is not a gastritis in the sense that "itis" means inflammation.

1. Reimann, H. A.: Infectious Diseases: Twelfth Annual Review of Significant Publications, Arch. Int. Med. 78: 447-494 (Oct.) 1946.

From the Mayo Clinic.

ENDOCRINOLOGY

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The best summary of the advances in endocrinology which I have seen is the booklet entitled "Exhibit on Endocrine Products." The booklet can be obtained by writing to the Council on Pharmacy and Chemistry of the American Medical Association. Dr. Austin Smith and Dr. Walton Van Winkle are to be commended for their fine work on this booklet, and particularly for their listing of all accepted brands of commercially available hormones. In this small booklet the authors were unable to go into much detail. Not every physician will agree with every statement; most physicians, however, will agree with the conservative point of view.

THYROID

Two of the recent advances pertain to the thyroid. One is the use of goitrogens, such as thiouracil and propylthiouracil, which were described by Astwood and VanderLaan and by Williams and others. The exhibit regarding the effect of goitrogens by Dr. Elmer Bartels, which has been awarded the silver medal, summarizes the present knowledge of these substances. The other advance pertains to the use of radioactive iodine. In a recent issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, articles by Hertz and Roberts and Chapman and Evans and an editorial present up-to-date information on the use of radioactive iodine. These workers report results obtained from the use of radioactive iodine prepared in the laboratories of the Massachusetts Institute of Technology. Concurrently, studies have been carried out in California by Hamilton and Soley and their associates using material prepared in the cyclotron of the University of California by Lawrence. Reports involving patients have not been published by the Western group. It is far too early to define the uses and limitations of treatment with this substance. Whether it is a medical cure for hyperthyroidism cannot be stated at this time. What effect it will have on the parathyroid glands and what later effects, such as the development of myxedema or carcinoma, may be observed are not known.

PARATHYROID GLANDS

The medical profession continues to be indebted to Dr. Fuller Albright and his associates for its knowledge of hyperparathyroidism. The importance of methods for the earlier diagnosis of this condition have been emphasized recently by Keating and Cook. If physicians can diagnose hyperparathyroidism before serious damage is done to the kidneys, bones and other parts of the body, then, after successful operation, these patients may be saved from the devastating effects of this condition. No new methods of treatment of parathyroid insufficiency have been introduced.

ADRENAL CORTEX

The treatment of Addison's disease continues to be less than satisfactory. Commercial firms have made available extracts of the whole adrenal cortex and have provided a synthetic fraction, desoxycorticosterone acetate. These two types of substances have improved the prognosis of Addison's disease but what we, as physicians, most desire in treatment of this condition is better and more potent whole adrenal cortical extracts and other synthetic fractions. Desoxycorticosterone acetate has a definite effect on the retention of salt and water but does not constitute complete replacement therapy for Addison's disease. The present treatment for Addison's disease, especially treatment with whole adrenal extracts, is far too expensive for most patients.

Results of treatment of Cushing's syndrome, whether it is caused by a basophilic adenoma of the pituitary or by hyperplasia of the adrenal cortex, continue to be extremely discouraging. The somewhat comparable condition produced by a tumor of the adrenal cortex or by arrhenoblastoma of the ovary responds well to surgical treatment provided metastasis has not occurred.

ADRENAL MEDULLA

An important new advance is the use of histamine in the diagnosis of pheochromocytoma. Roth and Kvale have found that an injection of a given amount of histamine will produce an attack of paroxysmal hypertension if a tumor is present.

PANCREAS

The use of alloxan or of the diabetogenic hormone of the pituitary for production of diabetes in experimental animals has given scientists another opportunity to explore the etiology and pathology of diabetes.

ESTROGENS, ANDROGENS, PROGESTERONE AND PREGNENOLONE

The list of estrogens available for clinical use fills two pages of the booklet mentioned at the beginning of this summary. They certainly have helped many patients who need estrogenic therapy, but physicians have improperly used estrogens, as well as androgens, in many instances. The title of the paper by Dr. Willard Thompson, at this meeting, "The Uses and Abuses of Male Hormone," was indeed well chosen. Estrogens and androgens are of greatest use for treatment of patients whose conditions are caused by a lack of these hormones. Mention should be made of the use of estrogens in the treatment of carcinoma of the prostate and the use of androgens in treatment of inoperable carcinoma of the breast. The early enthusiasm regarding the use of progesterone is being supplanted by more cautious statements in the literature. A new steroid, pregnenolone, may prove important. Its uses have not been clearly defined, but Pincus, Hoagland and their associates have described its use in preventing fatigue. Unquestionably, these hormones are important, but results of their use need to be evaluated more carefully.

GONADOTROPINS

Physicians are in general agreement that cryptorchism will respond to the use of gonadotropins in certain cases. Competent observers agree that when gonadotropins are administered the testes will descend into the scrotum in those boys whose testes would enter the scrotum later if the injections were not given. Many of these observers think that effecting descent of the testes into the scrotum prior to puberty is of some advantage and also that gonadotropins make operation easier in case the descent is not complete with hormonal treatment. I believe that it is unfortunate that gonadotropins are being used in a large number of other poorly defined conditions. More unfortunately, too few clinical studies contain adequate observation of control groups. If investigators in the field of basic medical science are impressed with the importance of adequate control studies, it seems that it would be wise for

From the Division of Medicine, Mayo Clinic.

clinicians also to make control studies of patients. New hormone fractions cannot be evaluated properly unless these studies are made.

PREPARATIONS OF THE ANTERIOR LOBE OF THE PITUITARY GLAND

I know that this audience joins in offering congratulations to Dr. Herbert Evans and his associates for receiving the gold medal for their exhibit on the fundamental aspects of the anterior lobe of the pituitary gland.

At this time, there is not generally accepted evidence that any commercially produced extract of this substance has proved of value in the treatment of human beings. Pure fractions of the anterior lobe of the pituitary gland have been produced which, in animals, have proved effective. It is to be hoped that in the future such extracts may be available for treatment of human beings. Physicians agree almost unanimously that products of the anterior lobe of the pituitary gland prepared for oral administration are totally worthless.

COMMENT

Finally, it does not seem out of place to comment that the best information regarding endocrinology is available in scientific journals, such as the *Journal of Endocrinology* and the *Journal of Clinical Endocrinology*. It is not unfair to state that pharmaceutic houses are primarily interested in the sale of their products and that statements appearing in their publications are not always accepted by members of the research departments of the same firms. It should be added that physicians should not be misled by overly enthusiastic writers for lay publications or by unscientific claims of pseudopharmaceutic firms. Nevertheless, members of the medical profession are greatly indebted to the reliable pharmaceutic firms for their aid.

CARDIOVASCULAR DISEASE

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Some of the most noteworthy advances in the treatment of cardiovascular disease have been made by surgeons in what was formerly considered a hopeless field —congenital heart disease. Patent ductus arteriosus, when attacked at an early age by surgeons of skill, has been removed as a later hazard to life from heart failure or infectious endarteritis. Coarctation of the aorta has likewise responded to skilful hands through resection of the narrow segment followed by end to end anastomosis. The condition of children with the tetralogy of Fallot and some other congenital lesions accompanied by cyanosis has been improved, at least temporarily, by anastomosing a branch of the aorta to the pulmonary artery. Although symptoms may be temporarily abolished, the fistulous tract may present a later hazard. Furthermore, the pulmonary stenosis is not corrected by this procedure. Better results might be achieved by a plastic operation on the pulmonary valve and conus at the site of the stenosis. During the war several surgeons have had unusual opportunities to treat patients in the younger age group with arteriovenous fistulas. The results have been notable. In civil life many patients with such lesions may be older, with more brittle vessels, so that there may be fewer successes.

SYMPATHECTOMY FOR HYPERTENSION

Recently interest has been shown in sympathectomy for hypertension. Many such operations have been performed by skilled surgeons, and in some quarters all comers are accepted for treatment. Surgeons still do not know how to select patients who may be expected to benefit by the procedure, which is a major operation with some undesirable after-effects. The percentage of beneficial results is about the same as after the use of other methods employed with equal enthusiasm and diligence. Hypertension by itself does not often give symptoms until the subject is aware of his high blood pressure, and he is generally relieved of his symptoms of anxiety after such operations or after any method of treatment carrying an impact of suggestion. One must raise the question whether sympathectomy is not another example of the mastery of technic over reason and whether it will not soon fall into discard along with sympathectomy and thyroidectomy for heart disease.

PROTRACTED EDEMA

Among the recent medical advances is the recognition of the great value of an extremely low sodium intake in the treatment of protracted edema. Whether fluids should be forced in addition may be open to question, but if left to their own devices such patients will take less fluid voluntarily and will not suffer from thirst as under former methods. The posture of the patient with dependent edema or anasarca is of great importance. It is better to put the edematous and orthopneic patient in a comfortable chair with support for the shoulder girdle than to force him to remain in a cramped position in bed. Soggy feet are better than soggy lungs.

CORONARY OCCLUSION

Anticoagulants are being recommended for patients with coronary occlusion. If they are to be used they should probably be instituted within the first forty-eight hours. At present Dicumarol (3,3′-methylene-bis-[4-hydroxycoumarin]) would appear to be the most suitable anticoagulant, but it should be used only under the most careful laboratory control. Thrombosis and pulmonary embolism from clots in peripheral veins may likewise be controlled by the proper use of anticoagulants. The wholesale ligation of veins, including on occasion the inferior vena cava, as a prophylactic measure, would not seem to be a reasonable procedure.

There has been an increasing appreciation of the value of intravenous administration of morphine in doses of ⅛ to ⅙ grain (8.1 to 10.8 mg.) for pain in coronary occlusion. I am convinced that the protracted pain is of major importance in causing the state of shock, which in itself may extend the zone of damage of the infarcted area. Perhaps more attention to treatment of shock by the usual or acceptable methods may be of additional value.

The treatment of angina pectoris by methods which promote the return of blood to the heart is at present the only rational approach to the problem. When the members of the medical profession understand how to use such methods many lives will be spared and many useful years will be added.

Purified glucosides of digitalis have all but eliminated the uncertain methods of standardization formerly in use.

RHEUMATIC FEVER

Salicylates have been employed in large doses recently in the treatment of rheumatic fever. The symptoms have been mitigated by this method, but convincing

proof is lacking that the cardiac damage has been lessened. It may be worthy of note that salicylates were given in large doses thirty years ago in the Massachusetts General Hospital and other hospitals without apparently modifying the degree of cardiac involvement. The value of sulfonamide drugs in preventing recurrences of rheumatic fever is not determined, but they would appear to be useful when given continuously in small doses. The questions of sensitization to the drugs and fastness of organisms are not yet answered, but I should think that these risks should be taken in view of the dangers of repeated insults to the heart.

The medical profession is approaching a solution to the etiology of rheumatic fever, and when the constitutional factors are better understood one should expect to terminate an attack in being or to interrupt the process before the biologic trap has been sprung and after the organism (streptococcus) has baited it.

VIRUS DISEASES

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In contrast with recent advances in antibacterial therapy, specific measures are available for few virus diseases. This cannot be laid to lack of research in this field, since many potential agents have been tested for their possible antiviral activity. Probably the most important factor responsible for this situation is the distinctive host-parasite relationship in virus infections, which has added greatly to the problem of dealing with this group of infectious agents. In bacterial infections the relationship of the agent is primarily an intercellular one, with the parasite exposed not only to the antimicrobic substances which the host may build up but to agents artificially introduced into the blood or taken up by the blood from the digestive tract. In virus infections the relationship is intracellular, with the virus quite out of reach of potential therapeutic agents brought to the infected area. Moreover, the initial invasion may be extensive and involve many cells simultaneously, so that by the time symptoms of infection appear little opportunity remains to change the natural course of the disease. Agents the effects of which depend on a direct action on the virus could be effective only while the virus is on its way from one cell to another. Such a successive invasion of cells might conceivably be prominent enough in individual virus diseases to afford some opportunities for a direct attack, and one would expect opportunities to be greater in those diseases known to be associated with a viremia or a blood phase. It is known, of course, that the use of immune serum early in measles serves to modify its clinical course, but this is one of the few virus diseases in which the value of immune serum is generally recognized. Even here it must be given early in the disease to be effective. Theoretically, then, the chances of limiting a virus infection with antiviral agents would seem to be small and limited to the few opportunities which may exist of "picking off" the virus particles while they are in transit from one cell to another. This applies also to antibodies, since immune globulins are generally held to be much too large to enter tissue cells. This view is supported by the results of serum therapy in virus diseases in general.

However, while the prospects of ultimately finding specific therapeutic measures against individual virus diseases are not bright, there is some ground for continued optimism. It is possible, for example, to point to the effective use of chemotherapeutic agents in two or three virus diseases, in spite of this intracellular relationship. Favorable results have been obtained with the sulfonamide compounds in trachoma, inclusion blennorrhea and lymphogranuloma inguinale, while penicillin has recently been observed to exercise some therapeutic effect in experimental ornithosis and psittacosis. All the viruses associated with these diseases are large viruses, and morphologically distinctive, in that they are rickettsia-like. They are nevertheless intracellular in their relationship to the host. Rickettsias also are intracellular parasites. In spite of this, therapeutic effects have been obtained with penicillin in experimental murine typhus. Encouraging results have also been obtained with para-aminobenzoic acid in certain rickettsial infections. It would appear, therefore, that an intracellular relationship in itself does not wholly preclude a possible solution of the problem of how to reach virus already sheltered within infected cells.

It is possible that the true solution will have to be found in a way which does not involve direct action on the virus, but which involves indirect action by some means which will render the protoplasmic soil of normally susceptible cells unsuitable for the multiplication of a given virus. Poorly nourished animals have been observed to be less satisfactory for experimental work on certain virus diseases than well nourished ones. Thiamine deficiency has been observed to result in some increase in resistance to experimental poliomyelitis in mice. It is known that robust health cannot be counted on to afford added protection to a person who is naturally, or genitically, susceptible to a given virus infection. There is obviously something about his protoplasm which favors the implantation and multiplication of a given virus. Why his cells afford a protoplasmic soil suitable for the multiplication of a virus and the cells of another species contain a protoplasm which is barren for this same virus is a question which all physicians should like answered. The latter state might conceivably be created artificially, if the answer to this question were known.

There is another aspect to be considered in the treatment of virus diseases, namely, the control of secondary bacterial invasion. There are some virus diseases, such as smallpox and influenza, in which secondary bacterial invasion may add greatly to the weight of the infection. Against this contingency the sulfonamide drugs and the antibiotics are now available and can be drawn on when indicated. Timely immunization against influenza should in itself do much to reduce the incidence of secondary pneumonia, but whatever prediction may be justified along this line, there are now, in addition, these highly effective antibacterial agents with which to deal in this complication. Severe smallpox is not wholly a virus infection, but it is commonly associated with systemic invasion by pyogenic cocci. While there is not any specific measure against the virus itself, it should be possible to do something to combat the secondary bacterial invasion which may add greatly to the weight of a smallpox infection.

While little can be said regarding specific therapy in virus diseases, much could be said regarding recent advances in immunization against them. Because of the host-parasite relationships mentioned, virus diseases must be thought of much more in terms of prevention than of treatment. Many have yielded to immunization. Unlike most bacterial vaccines, viruses are, as a rule, good immunizing antigens. This does not mean

that they always create increased resistance when injected as vaccines, especially when injected in an inactive form, since a well defined increase in resistance may depend on more than the mere presence of antibodies in the blood. To induce a definite immunity against certain virus diseases it is obviously necessary to induce a modified infection with living virus, as in vaccination against smallpox. These infections apparently give rise to some protoplasmic change within normally susceptible cells, as well as to formation of antibodies, the former being the more important factor in acquired resistance. Vaccination against yellow fever is carried out with a living modified virus. In general, however, the quest has been for nonviable vaccines of sufficient concentration and immunizing potency to stimulate a good humoral immunity, if nothing more. Such vaccines are possibly more likely to prove effective against infections in which a viremia, or blood phase, precedes the cellular invasion. Among the virus diseases against which active immunity can be established with suspensions of inactivated virus are influenza, equine encephalomyelitis and possibly epidemic encephalitis.

In this brief survey it is necessary to exclude all reference to the many advances which have been made outside of the field of specific therapy and prophylaxis, such as in the electron microscopy of viruses and their cultivation, purification and chemical analyses, and in variations in viruses. It is in these fields that some of the greatest advances have been made. Out of these may eventually come some way of effectively dealing with virus diseases at the bedside.

ARTHRITIS

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There are actually about two hundred forms of "rheumatism," including about one hundred different types of arthritis. But approximately 85 per cent of "rheumatic patients" suffer from one of seven common conditions: rheumatoid arthritis, osteoarthritis, the polyarthritis of rheumatic fever, periarticular or intramuscular fibrositis, psychogenic rheumatism, gout or gonorrheal arthritis. This discussion will be confined to five of these common forms.

RHEUMATOID ARTHRITIS

Penicillin.—Because of a supposed relationship between hemolytic streptococci and rheumatoid arthritis it was hoped that penicillin might be of value. This hope has not been realized. Large doses of penicillin have been given intramuscularly daily for from three to six weeks, or orally daily for from one to six months. No significant benefits were noted.

Streptomycin.—Streptomycin has been of no value in the few cases in which its use has been reported.

Neostigmine (Prostigmine); Physostigmine.—Chiefly to relieve painful spasms of the muscles in rheumatoid arthritis neostigmine bromide, orally or subcutaneously, was recently recommended. Later physostigmine salicylate, subcutaneously, was considered superior to neostigmine. The early favorable reports were not sufficiently critical. At the recent meeting of the American Rheumatism Association several experienced rheumatologists expressed their disappointment with this type of treatment and their belief that neostigmine was of little or no value in rheumatoid arthritis. Trommer's point of view was that neostigmine, given orally, is not of value and that neostigmine and physostigmine, given subcutaneously, can be regarded as adjuvants only. He stated, "When articular inflammation has subsided and deformity is due to muscle spasm then prostigmine may help." Recent experiences with soldiers with rheumatoid arthritis at one of the Army's rheumatism centers led Balboni, Hollander and Kydd to conclude that "prostigmine induces no significant relaxation of muscle spasm in rheumatoid arthritis. The slight variations in range of articular motion can be accounted for by the daily variations caused by changes in weather, fatigue or other influences which so commonly make the rheumatic patient better on some days and worse on others. A potent drug such as prostigmine should yield much more definite benefit than we have observed in order to justify its continued use in rheumatoid arthritis."

Antireticular Cytotoxic Serum.—Claims have been made by Bogomoletz and Strazhesko that "rheumatism" is one of the conditions relieved by injection of minute quantities of serum of animals into patients. The serum is generally obtained from rabbits immunized against human reticuloendothelial tissue cells. It is not clear what type or types of "rheumatism" were treated. According to one report Bogomoletz claimed that "in cases of acute arthritis it is a quick and certain cure, but when there is endocarditis application of the serum has a bad effect."

The serum was recently investigated for the British Empire Rheumatism Council by Bach. Results in various rheumatic diseases, including rheumatoid arthritis, were essentially negative. The Empire Rheumatism Council does not recommend its use. When informed of Bach's work Bogomoletz is said to have stated that "the serum is suitable for the cure of rheumatism only in the acute phase of the illness." According to Bach, Strazhesko, a colleague of Bogomoletz, has stated that "in chronic rheumatism (chronic arthritis and endocarditis) the serum should not be used."

Freyberg has completed a preliminary (unpublished) investigation of its use in about 30 cases of rheumatoid arthritis and spondylitis. Results to date have been disappointing. The serum is now being prepared in this country (Wyeth, Incorporated) and is available for further clinical trials.

Vitamins.—Recent studies have led to the following conclusion: "There seems to be no direct indication for the use of vitamin A, vitamin B complex (thiamine hydrochloride, niacin, riboflavin), vitamins C, E, or K in the relief of symptoms of chronic arthritis" (Traeger). I subscribe to this conclusion.

Although a few physicians still consider the use of concentrated doses of vitamin D, including ertron, of some value, the majority of experienced rheumatologists regard it as essentially useless. In some cases a slow moderate improvement (generally only subjective) may be noted, but the results are mainly disappointing. Severe, even fatal toxic reactions may occur; hence some have called the use of large doses of vitamin D for arthritis "a dangerous practice which may do the patient harm."

Gold Salts.—Although chrysotherapy for rheumatoid arthritis has been employed for eighteen years, its exact value is still undetermined. At the recent meeting of the American Rheumatism Association the opinions

From the Division of Medicine, Mayo Clinic.

expressed concerning chrysotherapy were diverse. The three chief drawbacks to this therapy are as follows: (1) Notable results are obtained in only about 20 to 35 per cent of cases; (2) relapses are common even when good results have been obtained, and (3) toxic reactions are frequent, occasionally serious. Because of these limitations certain physicians have abandoned its use. Other physicians employ gold compounds only when other measures have failed. But many experienced, careful rheumatologists maintain their conviction that chrysotherapy is the best single remedy for rheumatoid arthritis, and they urge that it be instituted as early as possible, preferably within the first two years of disease, rather than late after the disease has become more or less irreversible. According to Cecil, "It is a pernicious doctrine to advocate the use of gold only after everything else has been tried."

Toxic Reactions: Significant, but not necessarily serious, toxic reactions occur in approximately 25 to 30 per cent of cases in which chrysotherapy is employed. Serious toxic reactions occur in about 5 per cent (or less). Fatal toxic reactions occur in from 0.25 to 0.45 per cent of cases. Thus, in three recently reported series deaths occurred in 2 of 460 cases (Ragan and Tyson), in 2 of 500 cases (Boots) and in 2 of 800 or more cases (Cecil). Of recent years the incidence of fatal reactions has been reduced materially (from 3 per cent in 1935). Further experience should lower it still more.

Toxic reactions do not bear a constant relationship to the doses of gold used and may appear early or late during treatment. According to some authorities, they are related more to the duration of the disease than to the amount of gold given: reactions occurred twice as often in cases of ten or more years' duration as in earlier cases. Cutaneous reactions may be mild, or severe as in the exfoliative type. There is no way to detect impending dermatitis: eosinophilia does not necessarily precede it or indicate, when it is present, that dermatitis is impending. Serious reactions which have been fatal include thrombopenic purpura, aplastic anemia, acute glomerular nephritis, toxic hepatitis, agranulocytosis and acute enterocolitis. Agranulocytosis can now be controlled if penicillin is given promptly. According to Cecil, vitamin K and transfusions may be inadequate to control hemorrhagic purpura resulting from gold; in his hands splenectomy has been a life-saving measure. There is no known method of preventing toxic reactions, but their early discovery and control demand constant vigilance and frequent (perhaps weekly) examination of the patient's skin, blood and urine. "When these rules are faithfully followed, gold therapy can be used with a fair degree of safety" (Cecil).

Results: Considerable benefit in the majority of cases was reported by Cecil. Ragan and Tyson, in a follow-up study of 142 cases for three or four years, noted "marked objective improvement" in 35 per cent (50 cases); a "five year cure" was obtained in 9 (6 per cent) of the 142 cases. But the term "cure" is less appropriate than "complete remission."

Other American rheumatologists who have been less impressed by chrysotherapy have observed notable improvement in only 20 per cent and "arrests" in only 15 per cent of their cases. They observed great improvement only rarely and emphasized that those who report the best results are treating early rheumatoid arthritis; in early cases many remedies much less toxic than gold reputedly give notable results. Steinbrocker stated that too often advocates of chrysotherapy report "wishful statistics" and lump together patients "cured or improved" to make an impressive showing.

Relapses: When injections of gold are given by the course and then discontinued, the rate of relapse is high: from 50 to 80 per cent. Relapses often occur because of the necessity of the patient to return to fairly strenuous physical work. In 75 per cent of the cases of Ragan and Tyson (in which the course method was used) relapses occurred within one to fifty-eight months after injections were stopped. Although patients may receive further benefit from more gold, the results from a second course are not likely to be as good as from the first. Relapses were noted to occur just as often among early as among late cases.

Newer Plan of Dosage: Because gold salts accumulate notably in bodily tissues when weekly doses of 100 mg. are given, and in order to reduce toxicity, the current trend is to use smaller doses than formerly, generally with a maximal weekly dose of 50 mg. (25 mg. in cases of mild disease). One or two weekly doses of 10 mg. each are given, then one or two of 25 mg., and thereafter 50 mg. weekly. To reduce the tendency for relapses many rheumatologists no longer give courses of treatment and stop treatment after 1 or 1.5 Gm. has been given but continue weekly doses of 50 mg. until the patient's symptoms are relieved and the sedimentation rate returns to normal. Thereafter "maintenance doses" are given indefinitely, 50 mg. once every two, later every three or four weeks. If no definite relief is noted after five or six months of treatment or after about 2 Gm. has been given, further chrysotherapy is generally useless.

Conclusions Regarding Chrysotherapy: Obviously chrysotherapy is "still on trial," but its protagonists contend that arsenotherapy for syphilis was likewise on trial for several years until satisfactory methods of administration were finally developed. Some neutral observers have stated that the advocates of chrysotherapy are waging an uphill, losing fight. Bauer, who has concluded that his results from older methods of treatment are as good or better than from gold, expects the use of gold salts to be abandoned in the not too distant future even though no striking new substitute is forthcoming. Advocates of chrysotherapy admit that this remedy should not be relied on exclusively and that other general measures (rest, removal of foci, nutritious diet, physical therapy) should supplement it. In view of its hazards chrysotherapy should be used only by physicians familiar with, or willing to familiarize themselves with, the details required for adequate control, by physicians with hospital and laboratory facilities and by those willing to carry out repeatedly the necessary clinical and laboratory precautions. In view of the serious potentialities of rheumatoid arthritis, I believe that chrysotherapy is justified whenever rheumatoid arthritis has lasted more than a few months and shows evidences of being progressive, provided that the patient understands and is willing to share the risks.

RHEUMATOID SPONDYLITIS

Roentgen Therapy.—Although roentgen therapy in cases of peripheral rheumatoid arthritis has been generally disappointing, it has been reputedly of considerable value in cases of rheumatoid (ankylosing) spondylitis. Of 52 patients treated by Smyth, Freyberg and Lampe

in 1941, notable subjective improvement was obtained in 72 per cent and impressive objective improvement in 50 per cent. To rule out a psychic effect other patients were given "placebo therapy" (they were placed on the roentgen therapy table; a lead screen was used to block the roentgen rays); no patient was notably improved.

The more recent experiences of Freyberg have confirmed these earlier results. This work has recently been further confirmed and extended by Smith, Boland, Shebesta and Hench, who treated 25 spondylitic soldiers with roentgen therapy alone, 25 with placebo therapy alone in the manner described (lead screen being used) and 25 with deep breathing and postural exercises alone. The patients were observed in an army hospital for at least one hundred and eighty days. Of those who received roentgen therapy subjective improvement was moderate in 56 per cent and pronounced in 36 per cent (total 92); objective improvement was moderate in 60 per cent and pronounced in 8 per cent (total 68). Of those given psychotherapy, who went through the ritual as for roentgen therapy but received no radiation, subjective improvement was moderate in 28 per cent and pronounced in 9 per cent (total 37); objective improvement was moderate in 8 per cent, pronounced in none. Of those given breathing and postural exercise alone subjective improvement was moderate in 40 per cent and pronounced in 8 per cent (total 48); objective improvement was moderate in 32 per cent and pronounced in 8 per cent (total 40). These results are notably in favor of roentgen therapy. Thereafter all patients received whatever treatment they had previously missed. The combined program of therapy was superior to any one alone.

OSTEOARTHRITIS

Although cup arthroplasties have been performed frequently on osteoarthritic hips since Smith-Petersen developed the procedure in 1939, studies on end results have been few. Recently reported were the results obtained at the Mayo Clinic in a series of 91 cases, 27 of which were cases of osteoarthritis, sometimes of the primary (idiopathic, senile) type, but generally of the type secondary to congenital anomalies, Legg-Perthes' disease, and so forth.

Results eight months to five years after operation in these 27 cases were as follows: In 15 per cent results were very good: The patient was able to walk without support and had good motion of the hip with no noticeable limp or pain. In 30 per cent results were good: pain was absent or minimal and the patient was able to walk well not only on the level but up and down stairs, although at times a cane was required. In the remaining 55 per cent, results were only fair or poor. Results were better among men than among women. Vitallium cups were superior to lucite cups.

Indications for Operation.—According to Ghormley cup arthroplasty is recommended, not for hips that are merely painful, but in cases in which pain is associated with considerable limitation of motion. It is not recommended for patients more than 60 years of age.

RHEUMATIC FEVER

Salicylates: Oral Versus Intravenous Administration.—Three years ago Coburn recommended that salicylates be given in large doses intravenously rather than orally and claimed that thereby the duration of the acute febrile polyarthritis and other features of acute rheumatic fever were shortened and the incidence of valvular heart disease was notably reduced. In the main this work has not been confirmed. Several recent reports have indicated that in general the intravenous administration of salicylates has no superiority over the oral administration. No differences were noted in the time necessary for articular pains to disappear or for sedimentation rates to become normal, in the incidence of polycyclic attacks, in the tendency for preexisting cardiac damage to progress or in the development of new cardiac involvement. Serious toxic, even fatal, reactions have occasionally resulted from such therapy.

Sulfonamide Prophylaxis.—The prolonged administration daily of sulfonamide compounds to patients, particularly children, who have previously had rheumatic fever has notably reduced the incidence of subsequent rheumatic attacks as well as the death rate from rheumatic carditis. Rosenberg and I recently summarized the seventeen studies of this form of treatment so far reported from ten different clinics, covering an experience of ten years. Among the rheumatic patients protected by sulfonamide compounds for one thousand and thirty-seven seasons, only 22 acute rheumatic exacerbations occurred, an incidence of 2.2 per cent, and only 3 patients died from rheumatic fever. But among the rheumatic patients who did not receive sulfonamide compounds during one thousand three hundred and forty seasons, there were six times as many recurrences (183 acute attacks, an incidence of 13.7 per cent) and almost twice as many deaths (5 deaths to date) as among those who received sulfonamide compounds for prophylaxis. Hence such prophylaxis appears to represent a really important medical advance. Toxic reactions were generally mild; the risks inherent in such chemoprophylaxis were considerably less than those from the disease not so treated.

GONORRHEAL ARTHRITIS

Falling Incidence.—Gonorrheal arthritis seems to be disappearing. Prior to the introduction of sulfonamide compounds it complicated 2 to 5 per cent of cases of gonorrhea. But during the war the incidence of gonorrheal arthritis among certain groups of soldiers with gonorrhea was only 0.1 to 0.3 per cent. Listed annually in the *Quarterly Cumulative Index Medicus* between 1930 and 1940 were an average of thirty-four articles on gonorrheal arthritis; in the past five years an average of only eight articles thereon has been listed annually. The incidence of gonorrheal arthritis per hundred thousand admissions to the Mayo Clinic has fallen from 45 in 1937 to 2 in 1945. This falling incidence constitutes one of the triumphs of chemotherapy, primarily with sulfonamide compounds. In view of this success the prompt recognition of gonorrheal arthritis is all the more important, because if it is treated promptly it is generally cured quickly and dramatically, whereas unrecognized gonorrheal arthritis can damage a joint seriously in a fairly short time.

Current Ineffectiveness of Sulfonamide Compounds.—Until recently sulfonamide compounds were effective against gonorrhea and gonorrheal arthritis in a high percentage of cases, but the sulfonamide-susceptible strains of gonococci have now largely been killed off in the United States, leaving mostly the sulfonamide-resistant strains to be combated. Hence the incidence of failures after sulfonamide therapy of gonorrhea has

gradually risen from about 15 to 35 per cent; some say to as high as 80 per cent in certain regions of the country. Therefore penicillin has almost completely replaced sulfonamide compounds in the treatment of gonorrhea and gonorrheal arthritis.

Penicillin for Gonorrheal Arthritis.—Penicillin has been outstandingly successful in the treatment of gonorrhea because, of all the organisms susceptible thereto, the gonococcus is the most sensitive. Recently the War Department announced that of 11,000 soldiers who had gonorrhea 96 per cent were cured by penicillin alone; the remaining 4 per cent were generally cured by penicillin combined with sulfathiazole. Although some workers report cures in only 86 to 92 per cent of their cases, according to Keefer and Moore penicillin alone will cure genital gonorrhea in about 98 per cent of cases. One would expect, therefore, that penicillin should be about equally effective against articular gonorrhea. Early experiences seemed to justify this expectation, and in most of the reported cases of gonorrheal arthritis treated with penicillin in 1943 and 1944 cure was achieved quickly. But in the fall of 1944, certain failures with penicillin given for gonorrheal arthritis were reported.

Results from Penicillin.—I have been able to find, briefly mentioned in the literature on penicillin (1943 to 1946 inclusive), a total of only 82 cases of gonorrheal arthritis treated with penicillin. Of these 82 cases only 20 were of proved gonorrheal arthritis—that is, cases in which gonococci had been recovered from synovial exudate. The remaining 62 cases must be classified as presumptive gonorrheal arthritis. In most of these no articular cultures had been made; in a few, cultures of synovial fluid had been made but were negative. Practically none of the cases were described in any detail whatever. They were merely spoken of as "gonorrheal arthritis" or "acute gonorrheal arthritis," "arthritis with gonorrhea," "subacute arthritis with gonorrheal urethritis" or "complicating arthritis."

Assuming for the moment that all 82 cases were actually cases of gonorrheal arthritis, results with penicillin can be summarized briefly. There were 18 cases of proved, and 59 of presumptive, acute gonorrheal arthritis and 2 of proved and 3 of presumptive "chronic gonorrheal arthritis."

In 11 (60 per cent) of the 18 proved cases of acute gonorrheal arthritis cure was obtained. In 1 case penicillin, given intravenously, was promptly effective. In 2 other cases only partial improvement resulted from the intramuscular or intravenous administration of 160,000 units of penicillin given within forty-eight to sixty hours, whereupon in each case penicillin was given intra-articularly once a day for three days (a total of 8,700 and 10,000 units respectively) with prompt cures. Hirsh, Feffer and Dowling gave penicillin, generally intramuscularly, to 15 patients with proved acute gonorrheal arthritis: Seven patients who received "short courses" of penicillin in doses totaling 50,000 to 2,400,000 units within about three days were not cured. But prompt cures were obtained by 8 patients who were given larger total doses, 925,000 to 2,000,000 units within five to ten days.

Of the 59 patients with presumptive acute gonorrheal arthritis 34 (58 per cent) were cured, and 25 (42 per cent) were not cured. Of the 5 patients who had chronic gonorrheal arthritis, 1 patient who had presumptive arthritis of more than three years' duration was reported as being promptly cured (20 per cent); the 2 patients who had proved gonorrheal arthritis of three and six months' duration, treated with "short courses," and 2 patients who had presumptive chronic gonorrheal arthritis (no data given) were not cured (80 per cent).

Of the 77 cases of acute gonorrheal arthritis, proved or presumptive, cure resulted from use of penicillin in 45 (58 per cent) and was not achieved in 32 (42 per cent). Of all the 82 cases, acute or chronic, proved or presumptive, cure was obtained in 46 (56 per cent) and was not obtained in 36 (44 per cent) with penicillin. Results for the patients cured were described as "dramatic," "unequivocal within forty-eight hours," "striking," "excellent," "immediate," "complete and rapid within a few days."

Reasons for Failure of Penicillin.—If penicillin cures genital gonorrhea in 90 to 98 per cent of all cases, the question arises, Why does it cure gonorrheal arthritis in only about 58 per cent of cases? Why are not the articular complications, especially the acute ones, as amenable to cure as the other complications of gonorrhea, most of which respond readily if sufficient penicillin is given? Several reasons have been or can be advanced as possible causes for these failures: (1) the use of inadequate amounts of penicillin; (2) the supposed relative impermeability of the synovial membrane to penicillin, given parenterally; (3) the possibility that penicillin-resistant strains of gonococci are being encountered; (4) tardiness in instituting treatment; (5) the use of relatively impotent preparations of penicillin, and (6) errors in diagnosis.

1. Inadequate Dosage: The total dosages of penicillin used to treat most of the patients who were not cured were often not clearly stated, but they were usually between 60,000 and 100,000 Oxford units, rarely more, given as a rule intramuscularly. Hence some of the 36 failures (in 32 cases of acute and in 4 of chronic disease) admittedly resulted from the use of doses which are now known to be inadequate in some cases. With the present availability of penicillin, no future failures should be properly attributed to inadequate doses.

2. Concentration of Penicillin in Synovial Fluid: Early workers recognized that when penicillin was given intramuscularly or intravenously some of it appeared in synovial fluid. Herrell and his associates found only half as much penicillin in synovial fluid as in blood serum. Others noted that when penicillin was injected intra-articularly its absorption into the blood stream was tardy. For these reasons the impression arose that the synovial membranes are relatively impermeable to penicillin. Hence certain failures in the use of penicillin for gonorrheal arthritis have been explained by the curious notion that penicillin, given intramuscularly or intravenously, does not get into the articular cavity in sufficient concentrations to cure the gonorrheal arthritis.

As a matter of fact, Herrell noted excellent res despite the relatively lower concentrations of penicillin in synovial fluid in his cases, and more recently Balboni, Shapiro and Kydd, using a different method of assay, noted that penicillin, given intramuscularly in doses of 25,000 and 40,000 units every three hours, penetrated rapidly into synovial fluid and attained levels comparable with those in blood serum. Furthermore, maxi-

mal antibacterial quantities of penicillin persisted longer in articular fluid than in blood serum.

But even if such is not the case and the concentrations of penicillin in synovial fluid are considerably lower than those in blood serum, this still is an inadequate reason for failure, because gonorrheal arthritis is not a disease of the articular *cavity*. It is a disease of the synovial and periarticular tissues. Since these tissues are highly vascular, even more so when inflamed, there is no reason to suppose that penicillin entering the vessels of the articular tissues should not reach the infected regions.

It might be suggested that in the presence of inflammation synovial blood vessels and membranes are less permeable to penicillin than under normal circumstances. But this argument is not valid, either, because penicillin appears to permeate acutely inflamed membranes somewhat more readily than normal membranes; at least such is the case regarding the spinal membranes. The studies of Balboni and his colleagues were made in the presence of inflamed synovial membranes in rheumatoid arthritis.

3. Penicillin-Resistant Gonococci: Careful analysis of the failures of penicillin in the treatment of gonorrhea have been made by many investigators, but to date no naturally penicillin-fast strain of gonococcus has been encountered, nor has penicillin fastness developed under treatment. Although certain bacteria have been made resistant to penicillin in the test tube, development of clinical resistance has not become a problem. Such an eventuality may be prevented, in part, by the administration of adequate and not minimal doses of penicillin.

4. Tardiness in Treatment: In several cases gonorrheal arthritis had previously been treated unsuccessfully with sulfonamide compounds before treatment with penicillin; hence, there was some delay in administering penicillin. Because of the limited clinical data given it is impossible to say to what extent, if any, such tardiness contributed to the 36 failures. When gonorrheal arthritis is treated adequately within the first two or three weeks of the disease, a cure with complete functional restitution usually occurs. But, if the disease is allowed to continue untreated or inadequately treated for several weeks, irreparable articular destruction may occur, so that even though penicillin stops the active inflammation and cures the arthritis, complete functional recovery does not result. However, Suchet's patient who had presumptive chronic gonorrheal arthritis for three and a half years was reported cured with only minor articular residues when penicillin was finally available and given. (I find it difficult to accept this as a bona fide case of chronic gonorrheal arthritis.)

Delay in the use of penicillin need no longer be due to lack of supply.

5. Ineffective Penicillin: Commercial penicillin consists of varying amounts of one or more of the five known fractions F, G, X, K and dihydro F. Penicillin F and G are equally effective against gonococci; penicillin X may be several times more effective than F or G. But penicillin K has been found to be relatively ineffective, as it is rapidly destroyed or eliminated from the body and does not provide therapeutic levels in bodily fluids. For a few months in 1945 commercial penicillin may have had relatively less G and more K than previously. It is possible that some failures in the treatment of gonorrhea and gonorrheal arthritis may be thus explained. But ineffective penicillin cannot well be blamed for future failures, as the commercial preparations now available contain a preponderance of potent penicillin G. Even so, to insure against possible failure the National Research Council has recently recommended the use of increased doses of penicillin.

6. Errors in Diagnosis: In my opinion, the most common cause of past and future failures of treatment of gonorrheal arthritis with penicillin has probably been and will be an error in diagnosis. Experience at an Army rheumatism center revealed that most cases of so-called gonorrheal arthritis resistant to penicillin were not gonorrheal arthritis at all but were cases of rheumatoid arthritis in men who happened to have gonorrhea or of rheumatoid arthritis precipitated, reactivated or aggravated by genital (not articular) gonorrhea. In all likelihood some of the 36 failures reported to date were not in cases of gonorrheal arthritis. The 4 failures of Sternberg and Turner were listed as "articular involvement associated with a persistent gonococcic urethritis; presumably the joint lesions were gonococcic in origin." The 6 failures of Thompson were classified as so-called gonorrheal arthritis in which cultures of articular fluid were "never positive at any stage of the disease." Without knowing the clinical features of such cases I cannot judge whether they represented bona fide gonorrheal arthritis with negative articular cultures (as occurs in about 65 per cent of cases) or whether they represented nongonorrheal arthritis in patients with gonorrhea.

It is not sufficiently understood that acute genital gonorrhea is just one more acute infection which, like tonsillitis, influenza, scarlet fever, septic sore throat, and so forth, can act as a trigger mechanism for the production of rheumatoid arthritis. Acute gonorrhea can provoke the first appearance of rheumatoid arthritis, reactivate previously active but currently quiescent rheumatoid arthritis, or aggravate notably a coexistent rheumatoid arthritis. To the Army's rheumatism center were sent many patients with supposed gonorrheal arthritis resistant to sulfonamide compounds or penicillin or both who on further study proved to have rheumatoid arthritis precipitated or aggravated by acute gonorrhea. This was demonstrated by the completely negative reactions to therapeutic tests with high doses of penicillin, new articular sites often becoming affected during such treatment, by the subsequent course of the disease, the slow development of symmetric fusiform polyarthritis as characteristic of rheumatoid arthritis and in some cases by articular biopsies.

In the light of these facts, physicians should review the characteristic features and the criteria for a diagnosis of gonorrheal arthritis, proved or presumptive. Before classifying any case as one of penicillin-resistant gonorrheal arthritis one should review carefully the past articular history and the clinical features of any patient with supposed gonorrheal arthritis who does not respond promptly and satisfactorily to treatment. There is evidence to suggest that "postgonorrheal rheumatoid arthritis" is now more common than gonorrheal arthritis.

Treatment.—The control of gonorrheal arthritis resolves itself therefore into two problems: (1) accurate diagnosis and (2) the early administration of sufficient amounts of potent penicillin to provide antibacterial concentrations in affected articular tissues. At times the first problem may be more difficult than the second.

In doubtful cases, the patient should be given the benefit of a full therapeutic test.

When arthritis is a complication of gonorrhea, the use of Romansky's treatment with a single injection of penicillin in beeswax and peanut oil is probably inadequate. Penicillin should be given intramuscularly, 25,000 to 30,000 units every three hours (200,000 to 240,000 units daily) for from seven to ten days. If, within the first three or four days of such treatment, there is no definite improvement, intra-articular injections of penicillin of at least 10,000 to 20,000 units should be made once daily for three days if the affected joints are large enough to be so treated. If the patient's arthritis is not cured or unequivocally and notably improved within seven to ten days, the case and its diagnosis should be reviewed thoroughly.

SUMMARY AND CONCLUSIONS

A review of recent literature has been made for this discussion on arthritis.

In cases of rheumatoid arthritis no significant results have been obtained from penicillin, neostigmine (prostigmine), physostigmine or concentrated vitamins, including ertron. Preliminary results from use of streptomycin and from Bogomoletz's antireticular cytotoxic serum have been essentially negative; further clinical trials may be justified. Chrysotherapy is still on trial. Many experienced rheumatologists continue to regard it as the best single treatment now available and believe that, despite the risk of occasional serious toxic reactions, its use is justified in cases of progressive rheumatoid arthritis.

For rheumatoid spondylitis roentgen therapy appears to be the remedy of choice but should be combined with postural and deep breathing exercises.

In cases of osteoarthritis of the hips, arthroplasty and the use of vitallium cups after the method of Smith-Petersen have given satisfactory results in 45 per cent of cases, but patients must be carefully selected for the procedure.

For patients with rheumatic fever, salicylates given intravenously rather than orally have *not* been proved to be of superior value. Sulfonamide prophylaxis, the prolonged daily administration of sulfonamide compounds to patients who have had rheumatic fever, has notably reduced the incidence of subsequent rheumatic attacks as well as the death rate from rheumatic carditis. Rheumatic patients not protected in this manner apparently have about six times more chances of developing acute recurrent exacerbation than patients not so treated.

Gonorrheal arthritis, despite certain reports to the contrary, is generally cured promptly when enough penicillin is given. Failures have apparently resulted chiefly from inadequate dosages and perhaps also from errors in diagnosis which led to the treatment of patients with genital gonorrhea whose associated arthritis was nongonorrheal. It should be emphasized that rheumatoid arthritis can be precipitated, reactivated or aggravated by acute gonorrhea, just one more infection which, like influenza, tonsillitis, and so forth, can act as a trigger mechanism. At one of the Army's rheumatism centers cases of postgonorrheal rheumatoid arthritis were more common than cases of gonorrheal arthritis. Penicillin will cure the genital gonorrheal but not the associated or coincidental rheumatoid arthritis.

PANEL DISCUSSION

STERNAL PUNCTURE

QUESTION: Dr. Sturgis, please evaluate the diagnostic importance of sternal puncture.

DR. C. C. STURGIS, Ann Arbor, Mich.: Sternal puncture will confirm the diagnosis of blood disorder about two thirds of the times it is employed. It is therefore of great value from a confirmatory standpoint. It presents a specific picture in about 16 to 17 per cent of all cases of blood dyscrasias. These are multiple myeloma, Addison's pernicious anemia and allied macrocytic anemias, agranulocytosis and certain parasitic diseases such as leishmaniasis and malaria. There are two points to make: First, positive evidence is much more important than negative, and, second, although it is an easy thing to aspirate a drop or two of sternal marrow from the body of the sternum, it takes an expert with experience to interpret the results. Poorly interpreted, it does more harm than good.

SPLENECTOMY

QUESTION: What blood disorders are benefited by splenectomy?

DR. STURGIS: I believe there are only two, possibly three. The hemolytic anemias, either the chronic congenital hemolytic anemias or the acquired, which we are seeing more cases of, for some reason, are both benefited by splenectomy. Splenectomy should be considered in every instance in which these diagnoses have been established. The other condition in which it is undoubtedly of benefit is in idiopathic thrombocytopenic purpura. You should be sure of the diagnosis, of course, in both of these conditions. The third possible disease is Banti's syndrome, so called. I myself, do not think splenectomy is of value there, but some think it is.

HODGKIN'S DISEASE

QUESTION: Are platelets actually increased in Hodgkin's disease?

DR. STURGIS: The platelets may be increased in Hodgkin's disease, but in the terminal state certainly there is a leukopenia with thrombocytopenic purpura.

HEMOGLOBIN ESTIMATION

QUESTION: What is the most satisfactory clinical method of hemoglobin estimation?

DR. STURGIS: First, I believe that you should employ the method where the maximum depth of color is reached instantly. That can be done by putting the blood in an alkaline solution, ammonium hydroxide, and oxyhemoglobin is instantly formed. Second is a suitable colorimeter. The photoelectric colorimeter is being perfected; it is less expensive, and it can be used by the practitioner. I think the oxyhemoglobin method, which is described in any modern textbook on clinical pathology, and the photoelectric colorimeter method are the best.

BLOOD DYSCRASIAS

QUESTION: What are the most common blood dyscrasias encountered by any physician in the United States?

DR. STURGIS: I believe I can answer that, at least for the vicinity of Ann Arbor. We did 25,000 routine hemoglobin estimations on patients in the outpatient and inpatient services of University Hospital, and 12.5 per cent had anemias of clinical significance. Forty-one per cent of these anemias were of the iron deficiency type—that is important—due to hemorrhage, usually, and hemorrhage from the gastrointestinal tract or the uterus in the case of women. This is an important type of anemia, because it is the most common and yields most readily in most instances to large doses of iron. A close second in frequency was anemia associated with chronic infection, infection of the urinary tract, of the pelvis, chronic infection of the lung, osteomyelitis or any other type of infection. This is a moderate anemia. It is very common. There are only two therapeutic agents of value: one something to combat the infection, such as penicillin and blood transfusion. The

anemia of this type is usually mild. The 20 per cent that are left were made up of pernicious anemia, aplastic anemia, hemolytic anemias, and so forth.

LEUKEMIA

QUESTION: What is the dosage of radioactive phosphorus in treating leukemias?

DR. STURGIS: In treating leukemias we give 6 millicuries orally once a week for three or four doses. There is an individual variation, however, in the dosage. We treat until the white blood cell count is about 40,000. It usually takes two to four doses of 6 millicuries each.

ULCERATIVE COLITIS

QUESTION: Dr. Alvarez, what's new in acute ulcerative colitis?

DR. WALTER C. ALVAREZ, Rochester, Minn.: Sulfathalidine is the drug I have heard most from. One of the big things to remember is these people are losing a lot of protein and a lot of food, going down the drain, and they must be fed. We mustn't starve them the way we used to do. Another treatment I have heard good things from of late is treatment with the amino acids. What is more, here is an idea that I think few of us, perhaps, ever had before. In order to digest, we must have ferments in the intestine; we must have juices, and those juices contain protein. If the patient is not getting much protein and the rest is going down the drain, he can't make ferments. That is why sometimes, after giving the amino acids, the results have been spectacular. The patient has gone on digesting again.

COARCTATION OF AORTA

QUESTION: Dr. Kerr, what is the oldest age at which operation for coarctation of the aorta would be feasible?

DR. WILLIAM J. KERR, San Francisco: There have been few of these operations to date. I know of only seven or eight. I think, probably, one would get the best results if it was done during the early years or during youth. But it should be kept in mind that the longer the patient lives the better the collateral circulation. One need have little fear of clamping off the aorta under those circumstances, because there is already an adequate supply without anything going through this channel, or very little. I think there is less chance of damage to the spinal cord under these circumstances. But I think it is hard to answer that question categorically; one would think around the age of 50 or 60 or 70, especially if the patient had arterial changes, one might hesitate to do that.

MEDICAL TREATMENT OF GOITER

QUESTION: Dr. Rynearson, does it appear that recent advances in the medical treatment of goiter may supplant surgery?

DR. EDWARD H. RYNEARSON, Rochester, Minn.: These first two reports were turned over to you and me only on May 11, 1946. All of us have known that these studies were in progress, but this is the first time the medical profession as a whole has had the opportunity of reviewing the experiences of the Boston group. As far as I know, the group in San Francisco and the Bay District have not yet reported their results in the literature. It is by all odds the most important and fascinating thing which has come out in the treatment of goiter. I am just a little afraid, however, that we may forget the previous work, the use of the goiter genes which Astor and Williams and the others started. Of these two methods, there will undoubtedly be something forthcoming which will greatly help our handling of the hyperthyroid patient. Certainly the goiter genes already have helped you and me get patients ready for surgery, whom we have had a most difficult time getting ready before. So that as of July 5, 1946 I should say that the goiter genes have proved to have their principal role in the proper preoperative preparation of patients, and that this new principle, the radioactive iodine, suggests from the paper Chapman gave and from the articles which you and I have had a chance to read, here may be a lead toward eliminating the surgeons.

DR. KERR: It should be kept in mind in connection with this type of treatment with radioactive isotypes of iodine that it is still a destructive process. As Dr. Rynearson suggests, if we go back through history in the treatment of goiter we shall find that practically all the methods that have any value, outside of the use of iodine and some of the other drugs, are all destructive: injection of boiling water, putting in bare radon tubes or the use of x-ray treatment or surgical removal. They are all destructive methods, and so is this. The advantage here is that the radioactive material apparently goes to the most hyperplastic and most actively proliferating cells. I believe that, under proper control, this method may entirely replace the other destructive methods, including surgical treatment for hyperplastic goiter.

SCHISTOSOMIASIS

QUESTION: Dr. Faust, would you briefly comment on the modern clinical treatment of schistosomiasis?

DR. ERNEST C. FAUST, New Orleans: As I indicated previously, there is not as yet available for clinical use any new preparation. However, we have gone back to the oldest one used, used since 1918, namely antimony and potassium tartrate. By slightly changing the method of administration, in other words injecting 0.5 per cent solution rather than 2 to 6 per cent solution, the tolerance has been greatly increased. Within a period of slightly less than one month, giving it once a day intravenously on alternate days, we are able to introduce approximately 0.5 Gm. of metallic antimony. While there are some relapses, the results have been very satisfactory in comparison with the other antimonials which have been administered. There are these things which must be kept in mind, namely that a few people are intolerant and have uncontrollable bronchial spasm; some have uncontrollable nausea and vomiting, and one thing which I think we should definitely keep in mind because we now know a little about it, namely that a large amount of antimony is deposited in the thyroid gland, so that in the cases of hyperthyroidism it may be that antimony is contraindicated.

PENICILLIN IN PNEUMONIAS

QUESTION: Dr. Reimann, some one wishes to know whether all pneumonias should be treated with penicillin.

DR. HOBART A. REIMANN, Philadelphia: As I think you can gather from what I said before, my opinion on that point is that all patients with pneumonia should be treated with penicillin, but the recommendation should be qualified. When, for example, the practitioner in the country has to deal with a patient suddenly taken with a severe form of pneumonia, I think he is perfectly justified in giving the patient sulfonamides but preferably penicillin. The same qualifications obtain here that I mentioned before: If one treats the patient empirically, the penicillin or the sulfonamides should be given in large, recommended doses promptly and should be stopped within a reasonable time because of the danger of sulfonamide poisoning, which we have seen so often. I think the best answer to the question is that one has to use a good deal of judgment as to whether one is going to use either penicillin or sulfonamides for the pneumonias but probably make an etiologic diagnosis, if possible, beforehand.

VIRUS DISEASES

QUESTION: Dr. Schultz, what laboratory diagnostic procedures are of value to the practicing physician in virus diseases especially neurotropic or respiratory, and when should they be used?

DR. E. W. SCHULTZ, Stanford University, Calif.: In the neurotropic virus diseases we have little that can be of value in the immediate diagnosis. Most of it is in retrospect. The most helpful procedure is the collection of serum early in the disease and a repetition of this later on, and then tests for the presence of neutralizing antibodies, whether or not neutralizing antibodies have appeared. In certain of the encephalitides it is possible at times to isolate the virus from the blood. This is unlikely in this group of infections. Certainly there are no opportunities for demonstrating the virus in either blood or spinal fluid in poliomyelitis. In poliomyelitis the presence of

virus in the stools may be demonstrated by inoculation of the fecal suspensions intranasally. In some instances the virus may be demonstrated in the nasopharyngeal secretions. In respiratory infections such as influenza it is possible to demonstrate the virus directly by inoculating it into mice or ferrets intranasally. I think that just about covers it, the most important test being the test for neutralizing antibodies in the blood.

RHEUMATIC DISEASE

QUESTION: Dr. Hench, if a rheumatoid arthritic patient is sensitive to gold, what treatment do you use?

DR. PHILIP S. HENCH, Rochester, Minn.: One has to revert, of course, to the more conservative measures, which, I might add, in the hands of some men seem to be just as good as gold therapy. Of course, they are the removal of obvious areas of infection, the institution of a program of rest so the inflamed joints would not be traumatized by occupation and recreation unduly, and, perhaps, the use of physical therapy daily in their own home, supplemented by professional physical therapy, which will relieve pain and relieve muscle spasm, and then, perhaps, vaccine therapy.

HYPERTENSION

QUESTION: Dr. Kerr, what is the most valuable method you employ in treating a hypertensive patient who appears to be steadily getting worse, that is, hypertension constantly increasing in an otherwise apparently normal adult?

DR. KERR: I assume that this is a patient who does not have an underlying nephritis. There is the problem, of course, of treating the patient from the psychologic standpoint, of giving the patient adequate rest during this time, although there are some who feel that the patient with hypertension has to be kept moving. There is a period when they are improved. I think the use of phenobarbital or some other sedative is of value at this time. If the heart is failing, obviously the heart requires its own treatment. During the last ten or fifteen years I have had a good deal of experience with patients who seemed to be doing badly, who had increased venous pressure, who had encephalopathy developing as well as cardiac failure, and some renal failure. I have found, in a high percentage of patients in this group, that the spinal fluid pressure was very high, up to 300, 400, 500, even up to 700 mm. of spinal fluid. They may have ocular manifestations during this time, even rapidly failing vision. By repeated spinal fluid removal of as much spinal fluid as can be taken out, the symptoms of headache, of visual disturbance, cardiac failure, even renal failure, may be eliminated or eradicated.

SEX HORMONES IN HEART DISEASE

QUESTION: Dr. Kerr, have sex hormones any place in treating heart disease?

DR. KERR: I have not had any great experience with sex hormones in the treatment of heart disease. Many of us for a good many years have had the idea that if we gave too much of those substances to patients who had heart disease or hypertension it might even be dangerous. I don't know whether that is true, but it has been, of course, suggested. I haven't had enough experience so that I could pass any judgment on that. It does give some people a sense of well being to get something which they think might be helpful.

MALARIA

QUESTION: Dr. Faust, what is the best method of treating the chronic recurrent malarial attacks in our returning Pacific veterans?

DR. FAUST: Ninety-nine per cent of the cases coming in from the Pacific—at least 99 per cent—are going to be the vivax type. The so-called benign but the very troublesome vivax type and the falciparum type have been, in all these cases, eliminated by adequate atabrine suppressive treatment in the field. If these cases have been proved to be resistant time and again to clinical administrations of atabrine, then quinine should be used at least until chloroquin becomes available, and the quinine would be given by oral administration, using 30 grains (2 Gm.) a day for a period of approximately six days, and then proceeding with 10 grains (0.65 Gm.) a day for a period of five to six weeks at most. When chloroquin becomes available 4½ grains (0.3 Gm.) given twice a day for the first day and then 4½ grains for the following three days will constitute a course of treatment. This is a better drug than atabrine, does not produce discoloration and has a much better record in reducing or completely eliminating relapse. So I think we can depend on it, in the course of the next several months, to give us an answer which will be much better than quinine or atabrine. But if the patient is now atabrine resistant, quinine is the present drug of choice.

THIOURACIL IN THYROTOXICOSIS

QUESTION: Dr. Rynearson, in selected cases, that is those of poor surgical risk, or those who have recurrent thyrotoxicosis, would you condemn persistent thiouracil administration?

DR. RYNEARSON: As of 1940, if we can use that, the deaths which were occurring in goiter surgery were pretty largely either those who had such severe cardiac failure secondary to adenomatous goiter, with hyperthyroidism or prolonged and unrecognized toxic diffuse goiter, they could not satisfactorily be prepared for operation. The second group was a large, unfortunately large, number of patients who had been put on 10 drops of iodine three times a day, week after week and month after month, and in some instances a year or longer. Those patients were terribly difficult to get ready for operation. With the use of thiouracil or thiobarbital or any one of the goiter genes we have at our disposal a better method than the use of iodine, even though it takes longer for preparing those patients for operation. The last report which I have had from Boston, where they have had the greatest experience in serving these patients, is that about 50 per cent of the patients in whom an attempt has been made to treat the hyperthyroidism medically, without operation, they have had recurrences of the hyperthyroidism, requiring thyroidectomy. Perhaps one third of the patients with hyperthyroidism can be controlled with these goiter genes, but in all instances it does offer an excellent method for preoperative medical treatment. It probably is not the answer to cases of severe goiter, from the standpoint of medical treatment without surgery.

SALICYLATES IN RHEUMATIC FEVER

QUESTION: Dr. Reimann, some of the members would like to know a little more about your belief in the use of massive doses of salicylates for rheumatic fever and the method of administration.

DR. REIMANN: I have always been opposed to massive doses of drugs for any disease simply to bring the patient to the point of toxicity. I think there it is an error in judgment. Why give normal doses when smaller doses will produce the same clinical effect? With regard to salicylate therapy in acute rheumatic fever, we know the drug is not a specific in the sense of the term that it affects the disease mechanism, but it is a specific symptomatic agent. So, instead of giving the enormous doses of 10 Gm. intravenously which were once recommended, why not be satisfied with doses of 8 to 10 Gm. per day, which seems to control the symptoms as satisfactorily as larger doses, without having the danger of toxicity and even of death, which has occurred in a number of patients receiving this enormous dosage.

HISTAMINE IN GASTRIC ULCER

QUESTION: Dr. Alvarez, several of the members would like to know something of the status of histamine in the treatment of ulcer. Is it felt that the degree of acidity is concerned in the actual development of the ulcer? What is the relationship between histamine and the treatment as outlined by Dr. Bernstein?

DR. ALVAREZ: I can't see how on earth anybody would want to treat ulcer with histamine, which should raise the acidity. Actually, years ago, we had some experience with that, and it didn't work any too well. We were getting, first, mucin which was supposed to cure ulcer, as some of you may remember, and that mucin turned out to be just full of histamine, and it did not cure the patients. So that I would never think of giving histamine to my patients, and I would be an

awful doubting Thomas. It would be very difficult, I think, to convince me that it was any good, because we do feel, I think practically all of us today, that the height of the acid has much to do with keeping an ulcer going.

POTASSIUM THIOCYANATE IN HYPERTENSION

QUESTION: Dr. Kerr, what is your attitude regarding the use of potassium thiocyanate in the treatment of hypertension?

DR. KERR: I have used it very little, and I don't think it is a drug that should be used generally unless one has adequate control of the blood levels. I don't think it is very often needed and, certainly it is not the real answer to hypertension. I seldom, if ever, use it.

CANCER OF UTERUS; METASTASES IN BONE

QUESTION: Dr. Adair, what about the therapy of carcinoma of the body of the uterus? Is there any relief experienced with large doses of testosterone propionate given three weeks for metastasis in bone, other than metastases in the breast?

DR. ADAIR: What is the treatment of cancer of the body of the uterus? That is surgical operation. Cancer of the cervix has had an interesting discussion during this convention, in that they are now separating about 10 per cent of the early carcinomas of the cervix and using radical surgery there, and that is new. I have had no experience with testosterone therapy in bone conditions other than metastases from cancer of the breast. I think it would be very illuminating to make further studies in that field. I have repeated recently the work of Hadow in England, who divided his elderly women with cancer of the breast, women from 60 on up, giving them large doses of the estrogens. I found that, to my great astonishment, I got 40 per cent improvement in patients who had metastatic lesions in the soft tissue. I have not yet had the opportunity to repeat that work in bone, which was a very striking piece of work, and it should be furthered and repeated by other workers.

PLASMOQUIN IN RELAPSING MALARIA

QUESTION: Does Dr. Faust feel that plasmoquin has no place in the treatment of relapsing Pacific malaria?

DR. FAUST: I think plasmoquin does have a place. Plasmoquin has this advantage, which atabrine, quinine and probably chloroquin and paliquin do not have: it sterilizes the gametocytes in the blood circulation so that the mosquitoes will be taking up sterile gametocytes when they take the blood. There is some indirect evidence also that plasmoquin gets down underneath the circulating malaria parasites, perhaps down into the sporozoitic foci, and sterilizes them there, perhaps actually cutting off, to a certain extent, their production. So that plasmoquin probably should always be recommended in conjunction with the main therapeutic, such as atabrine or quinine or chloroquin for this particular purpose or these two allied purposes.

POLIOMYELITIS

QUESTION: Dr. Schultz, should cases of poliomyelitis be isolated, and what technic of isolation should be used?

DR. SCHULTZ: We do not yet know how the disease is transmitted. All we know is that the virus is eliminated in the stools in rather large amounts, in some cases in the nasopharyngeal secretion. The connection between these two sources and the ultimate port of entry, which is also unknown, is not understood. I should think that isolation, complete isolation, is indicated, certainly until we know how the disease is transmitted, with particular attention to these two sources, and particularly the fecal source of the virus.

OBESITY

QUESTION: Dr. Rynearson, would you please list a few things which could be done for the obese patient that would promote safe weight reduction?

DR. RYNEARSON: Here again you run into a different concept of obesity, of two perfectly honest physicians approaching the same patient but with divergent opinions. I think the exhibit put on from the Department of Physiology of Northwestern University on the use of amphetamine as a treatment of obesity was fine. There, again, my interpretation, as I watched that exhibit, was this: that the use of that or other allied drugs has only one function, and that is to decrease the patient's appetite, in that case, human or canine; that the decrease in weight, again, as directly correlated with the number of calories ingested and the amount of calories utilized. I am therefore committed in my own thinking—I have had no reason to change it—that, if obesity is an endocrine problem, there still is no endocrine therapy for it. Nobody has ever used any endocrine extract which has caused them to lose an ounce, with the exception, of course, of adequate doses of thyroid. But even if it is an endocrine problem I know of no endocrine treatment. There has never been a patient in the history of the world who would fail to lose satisfactorily if that patient followed a diet sufficiently low in calories to permit weight reduction. If those two premises are correct, the safest and best treatment for obesity is a weight reduction program, making certain the patient has adequate mineral and vitamin supplements in which that diet is deficient. Beyond that I do not go. I have no particular feeling about the use of amphetamine except this: If the patient honestly wants to reduce, then that patient honestly will cooperate in limiting the calories. There never has been a failure, I wish to repeat, when an obese patient has failed to lose weight in following a rigid reduction regimen.

MINERAL OIL IN CONSTIPATION

QUESTION: Dr. Alvarez, is mineral oil a safe drug to be taken for constipation?

DR. ALVAREZ: I never heard of its killing anybody, so I guess it is safe that way. How anybody digests it at all, taking mineral oil, I don't know. We tell our patients, and most of them are perfectly willing to accept this dictum, that they musn't take cold, greasy food, and yet they take the food and pour cold, greasy oil on it and, what is more, an oil that is almost indigestible. Somehow or other they continue to digest. Some develop flatulence and indigestion, and some of them, of course, get into trouble after a while because the oil comes through unannounced. Then there is one other difficulty with the prolonged taking of oil: the feces are so soft that they do not dilate the anal ring and, as a result, these people get an anal ring which is very tight and sometimes has to be dilated or operated on. So I say to patients, if they want to take liquid petrolatum occasionally, it is all right; but to settle down to it for the rest of one's days I don't think is any good.

DR. KERR: I don't see how they get along without mineral oil in Minnesota. If you ever traveled through there on the train, you would realize during the wintertime, at least, that almost everybody must have constipation because it is so far out to the little house on the hill.

PENICILLIN IN ENDOCARDITIS

QUESTION: Dr. Reimann, what about the use of penicillin in subacute bacterial endocarditis?

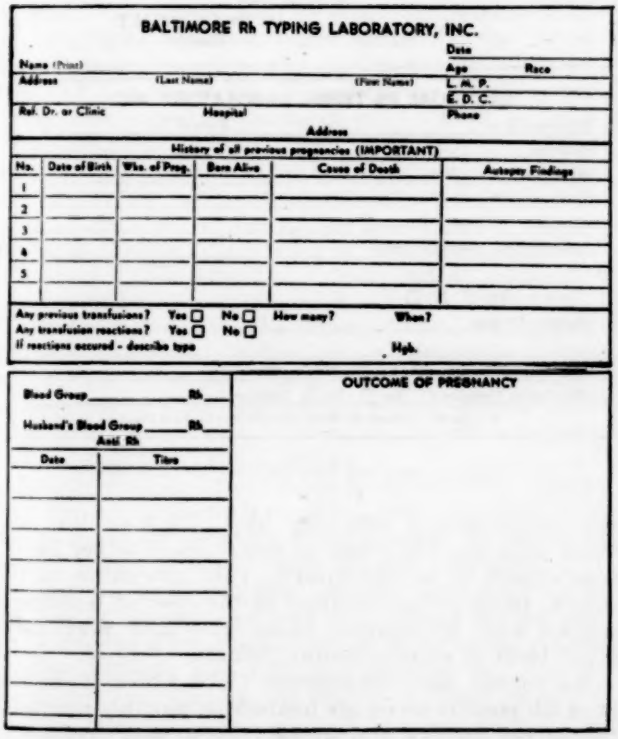
DR. REIMANN: The use of penicillin for this serious disease has been one of the most striking advances in the field of treatment of infectious diseases. Heretofore we had no agent that was at all satisfactory, with perhaps, the exception of sulfonamide compounds, which weren't very satisfactory. Now we see report after report coming in of 50 to 60 per cent of patients cured with penicillin, followed two to three years. It will take longer before we can evaluate this, because even though the patient is cured from his original attack there is every possibility and chance that he will become at some future time reinfected, because the nidus of the disease or distorted valve is still present. There is nothing to prevent the reimplantation of a Streptococcus viridans on that valve in case it becomes bacteremia. That brings up the initial, important question, which there isn't time to discuss, about the management of patients who have had subacute bacterial endocarditis, should they have a cold or should they have operation. I think it would be most valuable to use penicillin in a prophylactic manner, again, only for a short time, either before or during the operation and stop it again.

THE BALTIMORE Rh TYPING LABORATORY

A New Community Public Health Service

MILTON S. SACKS, M.D.
ELSA F. JAHN
and
WILLIAM J. KUHNS, M.S.
Baltimore

Subsequent to the initial report in 1940 [1] of the discovery of the Rh factor in human red blood cells there has been a rapid succession of papers emphasizing the importance of this new knowledge to clinical medicine. The principal applications have been to certain problems of obstetrics and pediatrics and to transfusion therapy. Rh testing and studies of Rh isoimmunization, however, did not become widespread immediately for a variety of reasons. Among these may be mentioned the relative scarcity and expense of potent and reliable testing serums; the increasing antigenic complexity of the Rh factor, and technical problems associated with the demonstration of anti-Rh immune bodies. Sporadic studies were made in some obstetric patients whose previous histories were strongly suggestive of the effects of Rh incompatibility and in other persons in whom, in the course of receiving multiple transfusions, inexplicable reactions developed. As it became increasingly obvious that varying manifestations of congenital hemolytic disease were by no means uncommon and that there was



BALTIMORE Rh TYPING LABORATORY, INC.

Date

Name (Print) — Age — Race

Address (Last Name) (First Name) — L. M. P. — E. D. C.

Ref. Dr. or Clinic — Hospital — Phone

Address

History of all previous pregnancies (IMPORTANT)

No.	Date of Birth	Wks. of Preg.	Born Alive	Cause of Death	Autopsy Findings
1					
2					
3					
4					
5					

Any previous transfusions? Yes ☐ No ☐ How many? When?
Any transfusion reactions? Yes ☐ No ☐
If reactions occured - describe type
Hgb.

Blood Group _____ Rh ___
Husband's Blood Group _____ Rh ___

Anti Rh

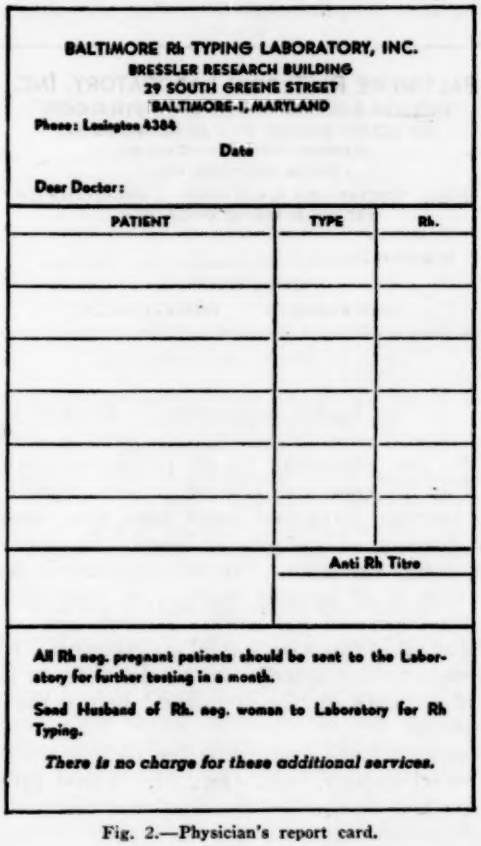
Date	Titre

OUTCOME OF PREGNANCY

Fig. 1.—Front (top) and back (bottom) of history card.

serious potential danger to both the mother and her newborn child in absence of preexisting knowledge of the Rh status in pregnancy,[2] a number of obstetricians in Baltimore deemed it essential to establish facilities for routine Rh studies at a minimal cost for any clinic or private patient in the city.

In the spring of 1945 the Obstetrical and Gynecological Section of the Baltimore City Medical Society appointed a committee to study the feasibility of estab-



BALTIMORE Rh TYPING LABORATORY, INC.
BRESSLER RESEARCH BUILDING
29 SOUTH GREENE STREET
BALTIMORE-1, MARYLAND
Phone: Lexington 4384

Date

Dear Doctor:

PATIENT	TYPE	Rh.

	Anti Rh Titre

All Rh neg. pregnant patients should be sent to the Laboratory for further testing in a month.

Send Husband of Rh. neg. woman to Laboratory for Rh Typing.

There is no charge for these additional services.

Fig. 2.—Physician's report card.

lishing a central laboratory for Rh testing. Official public health agencies were unable, because of wartime problems, to assume the additional burdens which this work entailed, but the cooperation of the City Health Department was of great assistance in the operation of the laboratory. It was decided to establish the laboratory as a cooperative private venture under the sponsorship of the society. Funds sufficient for the purchase of equipment and the employment of trained personnel were contributed as loans by individual members of the section. Space was generously provided without charge by the University of Maryland School of Medicine. The laboratory began to function on Aug. 1, 1945.

PLAN OF OPERATION

The laboratory is under the jurisdiction of a committee of six members of the local Obstetrical and Gynecological Society. One of us (M. S. S.) was appointed director. Two technicians, a research assistant, a stenographer, a maid and several part-time volunteers make up the rest of the staff. Services are offered free to dispensary patients of hospitals within the city and to patients of the City Health Department Obstetrical Clinics. Private patients pay $3 or $5, depending on whether their physician requests a serologic test for syphilis and a hemoglobin determination in addition to routine Rh typing and blood grouping. The initial charge is the only one; all subsequent studies throughout pregnancy are made without further cost to the patient. Similar arrangements have been made available to physicians in the counties of Maryland.

Miss L. Anne Hellen and Mrs. Lewis M. Hess assisted in the operation of the laboratory.
From the Baltimore Rh Typing Laboratory and the Department of Clinical Pathology, University of Maryland School of Medicine.

1. Landsteiner, K., and Wiener, A. S.: An Agglutinable Factor in Human Blood Recognized by Immune Sera for Rhesus Blood, Proc. Soc. Exper. Biol. & Med. **43**: 223 (Jan.) 1940.
2. Levine, P.: Prevention of Unintentional Isoimmunization of the Rh Negative Female Population, J. A. M. A. **128**: 946 (July 28) 1945; The Pathogenesis of Erythroblastosis Fetalis, J. Pediat. **23**: 656-675 (Dec.) 1943.

In the case of dispensary and clinic patients, blood samples are drawn in the various hospital outpatient departments and, through the cooperation of the City Health Department, are transported to a central point adjacent to this laboratory. Special cardboard boxes containing a test tube and a history card are distributed to the various hospitals and city obstetric clinics with

BALTIMORE Rh TYPING LABORATORY, INC.
BRESSLER BUILDING - ROOM 514 (FIFTH FLOOR)
29 SOUTH GREENE ST. - AT REDWOOD ST.
(OPPOSITE UNIVERSITY HOSPITAL)
PHONE, LEXINGTON 4384
HOURS: TUESDAY - 10 A. M. to 12 NOON - FRIDAY - 1 to 4 P. M.
FATHERS BY SPECIAL APPOINTMENT

Referred by Dr._____

SERVICE DESIRED:
PLAN A - $5.00 ☐ PLAN B - $3.00 ☐

Fig. 3.—Patient appointment card.

the aid of the health department. Private patients receive appointment cards (fig. 3) from a stock furnished by the laboratory to all physicians requesting them. For the benefit of private patients certain hours on two specified days each week have been designated for the drawing of samples of blood. Each period is of three hours' duration. The arrangement is designed to take care of all patients referred by their physicians during the course of one week. Patients are occasionally seen at other times by special appointment. Laboratory periods are so spaced that all the tests on a given group of patients can be completed before the subsequent session.

All pertinent data concerning the patient are entered on a special history form (fig. 1). Blood groupings are performed as soon as possible after the conclusion of a blood-drawing session. Rh typing is then done with a potent human antiserum of Rh_0' (Rh_1) specificity. All samples of blood giving obviously positive reactions are thus screened out. Those blood samples giving negative or doubtful reactions are further tested with three other antiserums, including those of Rh' and Rh" specificity. The serums of all patients with

BALTIMORE Rh TYPING LABORATORY, INC.
29 S. GREENE ST. - BALTIMORE-1, MD.

DATE_____

BLOOD GROUP_____ Rh_____

Keep This Card On Hand At All Times

Fig. 4.—Patient's blood group record.

Rh-negative blood are then tested for antibody content. For this purpose three tests are routinely performed: the blocking test, the conglutination test and the Diamond slide test.[3] If a positive reaction is obtained with any of these, titration of the antibody is attempted with the use of the conglutination technic of Wiener, as well as the standard procedure with a 2 per cent suspension of Rh positive cells in isotonic solution of sodium chloride. In this manner the presence in the serum of univalent (glutinins) or bivalent (agglutinins) antibodies, or both, is determined. Details are recorded on the history form. A special file is kept of all sensitized patients. Reports are sent promptly to the referring clinic or physician (fig. 2). The patient is sent a small card (fig. 4) on which her blood group and Rh type is indicated. The purpose of this is to obviate the necessity of a repetition of blood typing when the patient is admitted to a hospital for delivery.

The husbands of all women with Rh-negative blood are requested to come to the laboratory for typing. Women whose husbands are found to have Rh-negative blood are not required to return to the laboratory for further testing. If the husband is found to be

BALTIMORE Rh TYPING LABORATORY, INC.
29 SOUTH GREENE STREET
BALTIMORE-1, MARYLAND

Dear Doctor:

According to our records your patient

Mrs._____

who was Rh negative, was expected to deliver on or about_____

To help us complete our records, will you please fill in the attached card at your earliest convenience and mail to the laboratory.

Sincerely yours,
MILTON S. SACKS, M. D.
Director

BALTIMORE Rh TYPING LABORATORY, INC.

Patient's Name_____ Date of Del._____
Address_____
Attending Dr. or Clinic_____
Duration of Pregnancy At Time of Delivery_____
Condition of Infant: Normal ☐_____
Complications (describe briefly)_____
_____
Autopsy: Yes ☐ No ☐_____
Autopsy Findings_____
_____
Was Mother Transfused? Yes ☐ No ☐ When_____
Was Infant Transfused? Yes ☐ No ☐ Number_____
Send Patient At About Six Weeks After Delivery For Final Check

Fig. 5.—Front (top) and back (bottom) of follow-up card.

Rh-positive and of subgroup Rh_0' (Rh_1) or Rh', his blood cells are Hr typed to determine whether he is homozygous or heterozygous.[4] This information is, of course, particularly important in the case of sensitized women with Rh-negative blood who have previously given birth to erythroblastotic infants.

All women with Rh-negative blood whose husbands have Rh positive blood are followed at monthly intervals throughout the first and second trimesters of pregnancy and at closer intervals in the third trimester. The earliest evidences of sensitization are thus immediately detected and reported to the attending physician.

Patient's records are transferred from the active (pregnant) Rh-negative file to the inactive file at the termination of pregnancy. Special follow-up cards (fig. 5) are sent to the referring physician or clinic requesting information in regard to the outcome of the pregnancy. When these are returned they are clipped to the patient's history and become part of the perma-

3. Wiener, A. S.: A Blocking Test for Rh Sensitization, Proc. Soc. Exper. Biol. & Med. **56**: 173-176 (June) 1944; Conglutination Test for Rh Sensitization, J. Lab. & Clin. Med. **30**: 662-667 (Aug.) 1945. Diamond, L. K. and Abelson, N. M.: The Demonstration of Anti-Rh Agglutinins: An Accurate and Rapid Slide Test, ibid. **30**: 204-212 (March) 1945.

4. Race, R. R., and Taylor, G. L.: Serum That Discloses Genotype of Rh-Positive People, Nature, London **152**: 300 (Sept. 11) 1943.

nent record. Samples of the patient's blood are studied at ten days and six weeks post partum as a final check for the presence of antibodies.

COMMENT

The accumulation of mass data is essential to the proper evaluation and solution of the many problems still associated with heterospecific pregnancies. In most instances Rh heterospecificity is responsible for the varied manifestations of congenital hemolytic disease, but recent studies indicate the occasional involvement of maternal-fetal differences in regard to the A-B-O and M-N agglutinogens. For reasons cited earlier in this paper widespread adoption of Rh testing procedures has been retarded in spite of demonstrated value. At the present stage of development Rh studies, particularly those associated with the demonstration of the presence and character of antibodies, lend themselves well to centralization. The enthusiasm and success with which the establishment of this privately sponsored cooperative laboratory has been received attest to this fact. During the first eight months of its existence, the laboratory performed tests on approximately 7,000 pregnant women. There were approximately 12,000 births in Baltimore during a similar period. Even on the low fee basis, $3 to $5 for private patients, the laboratory has more than maintained itself, establishing a sizable sinking fund for the future.

To date, the proportions of Rh-positive and Rh-negative persons conform closely to previously established figures. The opportunity to study distribution of the Rh subgroups has so far been limited by the scarcity of necessary serums. Such studies are now in progress. Of a group of 904 Rh-negative pregnant women, 46, or 5.08 per cent, displayed evidences of sensitization. Detailed studies of this group also are now in progress. It is obvious that knowledge of the existence of sensitization in a particular patient will be of value in the prevention of intragroup hemolytic transfusion reactions. Future sensitization of women with Rh-negative blood by the unwitting transfusion of Rh-positive blood should also be prevented to a large extent.

Current methods for the prevention and management of congenital hemolytic disease are admittedly not too satisfactory. The detection and availability of a fairly large group of sensitized patients will permit the application and study of new technics for the better handling of this important clinical entity.

Among the byproducts of the operation of the laboratory are (1) maintenance of a continuous supply of potent serum by voluntary venesection of Rh-sensitized women whose serums contain bivalent antibodies, (2) accumulation of a large list, available to all hospitals in the city, of Rh-negative men of all blood groups who are willing to serve as volunteer or professional donors in an emergency and (3) application of Rh tests in medicolegal problems which involve disputed paternity.

SUMMARY

1. The Baltimore Rh Typing Laboratory, a privately sponsored cooperative community venture, began to function Aug. 1, 1945.

2. The services of the laboratory are available to private and clinic patients at a moderate fee. All pertinent data are kept in a permanent file and Rh study as a routine part of prenatal care has been performed on 7,000 women in the first eight months of the laboratory establishment.

3. The accumulation of mass data on Rh-sensitized patients will permit the application and study of new technics for preventing congenital hemolytic disease.

Special Article

HISTORY OF THE AMERICAN MEDICAL ASSOCIATION

MORRIS FISHBEIN, M.D.
CHICAGO

(Continued from page 923)

(NOTE.—*Following is the seventh chapter of a history of the American Medical Association, in process of development for publication in connection with the celebration of the Centennial of the American Medical Association in Atlantic City in June 1947.*

The general account of the history of the Association will be followed by individual histories of the various councils, bureaus, publications and other activities of the Association. The general account is written by the editor of THE JOURNAL. *Each of the other historical contributions will be by a member of the individual council, bureau or agency responsible and now associated with it or directly related to its work. Included will be photographs, signatures and a brief biography of each of the hundred presidents of the American Medical Association. This feature has been prepared by Dr. Walter L. Bierring.*

It will be impossible to publish all of the material in THE JOURNAL. *The complete work will be published in book form. It is hoped to have it available by the time of the annual session.*—ED.)

CHAPTER 7. *The End of the First Decade*

Viewing the development of the American Medical Association during the first few years of its existence, Dr. Nathan Smith Davis called attention to the factor which gave force to the activities of the organization. It seemed evident to him that many members had failed to perceive clearly the true relations of the American Medical Association to the medical profession. "They seem to look upon the national organization," he said, "in the same light as a representative civil government, whose acts were laws of binding import and whose basis of representation must consequently be adjusted with the same nice care to the equality of diverse or separate interests." It seemed to be forgotten that the Association was entirely a voluntary organization the acts of which carried with them no other force than the inherent justice of the acts themselves, coupled with the *moral* weight of the body from which they emanated; and that this *moral* weight would bear a close relation to the fulness of representation from those institutions whose interests were most involved in the movements proposed.

1853

NEW YORK CITY

Several years after the preliminary meeting was held in New York in 1846, the American Medical Association met in the Bleecker Street Presbyterian Church. The chairman of the Committee of Arrangements and Reception, Dr. F. Campbell Stewart, expressed the pride of New Yorkers at the triumphant success that had followed the movement originating in their state. At this meeting thirty states and territories, the District of Columbia, the Army and Navy of the United States and the American Medical Society in Paris were represented. The attendance was 573.

A resolution from the Medical Society of Virginia urged the American Medical Association to consider the propriety of appointing some distinguished and well qualified chemist (not a practitioner of medicine) to analyze the prominent nostrums of the day as far as

practical and to publish the result of such an analysis monthly in the most extensively circulated newspaper in each state in the Union represented in the Association.

LICENSURE AND EDUCATION

Again the Association indicated its interest in medical education and in epidemiology. Special committees were appointed to urge the passing of legislation for licensure of physicians in the individual states. Indeed one resolution was introduced urging that a student be not admitted to any medical school until he had graduated at some literary institution and was found to possess an English and classical education. Interesting too was a movement to compel the graduates of medical schools to take an oath to conform strictly to the code of ethics of their alma mater and to give to the faculty a right to withdraw the diploma in case the oath should be violated.

A resolution was introduced for the investigation of the value of galvanism as a therapeutic agent.

ACCOMPLISHMENTS OF THE ASSOCIATION

In the presidential address, Dr. Beverley R. Wellford of Virginia summarized in one paragraph the accomplishments of the American Medical Association in its first seven years. He was answering charges made in some quarters that the Association had as yet effected nothing. Some had affirmed that the Association had injured the profession in public estimation by exposing its deficiencies and had thus induced the patronage of homeopathy and other delusions of similar character. To this Dr. Wellford replied:

> But, gentlemen, if it be nothing to have reduced an amorphous, chaotic, professional mass to something like symmetry and order; nothing, to have awakened attention to important defects in preliminary and medical education, and, in some measure, to have removed them; nothing, to have caused the establishment and reorganization of local and State medical societies; nothing, to have caused the enactment of wholesome laws, both by the Federal and State Governments; nothing, to have produced scientific papers of acknowledged ability and erudition; nothing, to have awakened dormant talent, and elicited a vernal bloom, which promises a rich harvest of autumnal fruit; nothing, to have acquired a reputation, which renders even its membership a title of honour and distinction; is it also nothing, by unaided, intrinsic moral power, to have bound in one code of medical ethics, thousands of men in every section of this wide Union, each one free to act according to his own individual views, but yielding them in cheerful obedience to the opinions of the Association, with as much deference and submission as if it were armed with the power and the terrors of penal law? Is it nothing, unendowed with the compulsory authority of legal enactment, or the seductive influence of mileage and per diem pay, annually to convoke such an assembly, as I have now the honour to address? Gentlemen, such a congress, of such materials, and under such circumstances, presents a spectacle of moral beauty, to which the opponents of medical reform cannot be insensible. It must command their respect and admiration, even if it fail to secure their co-operation. I know not, gentlemen, what may be the effect on others of an occasion like this, but for my single self, when I thus recognize the denizen of the city and the forest; him of the frozen north and of the sunny south; him of the mountains, the rivers, and the prairies of the west, with him from the borders of the broad Atlantic bringing their various opinions and prejudices, and casting them together, as a sacrificial offering on the altar of science and professional patriotism; when I see them animated by the same honourable and lofty impulse, and, in fraternal harmony, uniting their efforts to attain the same grand results, I feel an honest pride in my profession and my country, and an abiding confidence, that, to such sons, the high destinies of both may be safely intrusted.

By this time Dr. N. S. Davis had begun to manifest his special interest in the medical literature of the day; he had now become chairman of the Committee on Medical Literature. He presented a report calling attention to the transactions of the individual state medical societies and the various monographs and books that had been published during the year. Much of his report dealt with his concept of the true functions of the editors of medical journals.

The prize essay was an article on "The Cell: Its Physiology, Pathology, and Philosophy; as Deduced from Original Investigations, to Which Is Added Its History and Criticism," by Waldo J. Burnett of Boston.

1854

ST. LOUIS

The President, Dr. Jonathan Knight, was unable to attend the St. Louis session in 1854; hence the address for the occasion was presented by the Vice President, Dr. Usher Parsons of Rhode Island.

The prize essay was that of Dr. Daniel Brainard of Chicago. The title was "Essay on a New Method of Treating Ununited Fractures and Certain Deformities of the Osseous System." Each of the contestants identified his essay with an appropriate quotation. Daniel Brainard chose a quotation from Ambroise Paré, which is one of the great classics of medical science:

> notwithstanding all the pains that I have heretofore taken, I have reason to praise God, in that it hath pleased Him to call me to that branch of Medical practice, commonly called Surgery, which can neither be bought by gold, nor by silver, but by industry alone, and long experience.

Already some attention began to be given to pedagogics in medicine; a resolution was offered, though promptly rejected, "that the practice of professors' reading lectures to their classes, no matter with how much care selected from the musty records of antiquity, is a miserable apology for teaching, is *primâ facie* evidence of their inaptitude to instruct, and is inimical to medical progress."

DRIED MILK

Well in advance of the times also was a resolution offered by Dr. N. S. Davis calling the attention of the Association to the "great sacrifice of health and life which takes place annually, especially among children in large cities, on account of the difficulty of procuring a proper supply of pure and wholesome milk; and the great importance of devising some mode by which the nutritious constituents of the milk can be preserved in their purity and sweetness for such purposes." He exhibited to the Association a specimen of dried milk which had been placed in his hands and which was represented to be capable of preserving all the qualities of the milk perfectly for any length of time. This, it must be remembered, was in the year 1854.

At this time an announcement greeted with great pleasure was made by the local Committee on Arrangements. All the railroads, except the New York and Hudson River Railroad, had granted to the members of the American Medical Association free passage to their homes.

ALCOHOLIC LIQUORS

Another resolution urged that a committee be appointed to examine into and report on the effects of alcoholic liquors taken into the system on health and disease.

A final action failed to be taken on a resolution that the cultivation and practice of specialties in medicine

and surgery are legitimate and honorable pursuits and meet the approval of the Association and that the same avenues for announcing his calling to the public that are recognized as proper to the general practitioner are open to the specialist.

On Friday morning, May 6, 1853, the day after the adjournment of the sixth annual meeting of the American Medical Association held in the city of New York, a train of the New York and New Haven Railroad passing through Norwalk, Conn., fell into the Norwalk River through an open drawbridge. Forty-four passengers of the ill fated train were suddenly deprived of life, among them seven physicians returning from the convention. As a memorial to these physicians the convention in 1854 published a record of their medical careers.

1855

PHILADELPHIA

By 1855 the number of prize essays, which had numbered a score or more at previous meetings, had steadily diminished. Only six essays were available for consideration by the Committee on Prize Essays in 1855. Only one of these was considered worthy of notice—a paper on "Statistics of Placenta Previa" by James D. Trask of White Plains, Westchester County, N. Y.

Well in advance of the times, however, was a resolution urging the secretary of the Association to offer every facility possible to the reporters of the public press to enable them to furnish full and accurate reports of the transactions.

As an indication that the nature of man does not change, it became necessary, previous to reading a report on the "Hygrometrical States of the Atmosphere in Various Localities, and Its Influence on Health," which was seriously interrupted by the loud conversation of members, to pass a resolution, unanimously, "that all the desultory conversation of members be done down stairs."

Realizing the importance of vital statistics, a resolution was introduced urging the Association to petition legislative bodies in the individual states to collect their vital statistics.

HOMEOPATHY VS. REGULAR MEDICINE

For the first time the battle between homeopathy and regular medicine reared its ugly head in the convention. Because the legislature of Michigan, in contravention to the charter of the University of Michigan, had put in a chair of homeopathy, a resolution was offered "That any such unnatural union as the mingling of an exclusive system, such as homeopathy, with scientific medicine in a school, setting aside all questions of its untruthfulness, cannot fail, by the destruction of union and confidence, and the production of confusion and disorder, unsettling and distracting the mind of the learners, to so far impair the usefulness of teaching as to render every school adopting such a policy unworthy of the support of the profession." This resolution was passed unanimously by the Association.

THE STATE SOCIETIES

For the first time also the authority of the national body in relation to state societies came into question; it was resolved that no state or local society should be entitled to representation in this Association which had not adopted its code of ethics, that no state or local society which has violated or discarded any article or clause should be entitled to representation and that since the State Medical Society of Ohio had violated one of the articles of the code of ethics by adopting a resolution "That it is not derogatory to medical dignity, or inconsistent with medical honor, for medical gentlemen to take out a patent right for surgical or medical instruments," therefore, be it resolved "that the secretary of this Association be directed to inform the officers of the State Medical Society of Ohio that, unless such action be rescinded, it cannot hereafter be represented in this Association."

1856

DETROIT

The "Firemen's Hall" in Detroit was the place of assemblage for the 1856 session. The number of delegates had fallen to 208, representing nineteen states, the Minnesota Territory and the United States Army.

Perhaps most significant of the considerations were those related to medical literature, urging a wider use of American articles and American medical textbooks in teaching.

The number of essays submitted for prizes had fallen still further; a resolution suggested that hereafter the money be awarded for the best essay founded on original investigations of the author.

A committee was established to classify those diseases which involved a derangement of the mental manifestations.

An expression of thanks was tendered to the Fire Department of the City of Detroit for the use of its large and commodious hall. Also it was resolved "that the urbane deportment and the elegant hospitalities of the profession and private individuals, as well as the polite attentions of citizens generally, demand of this Association a high appreciation of the cultivated manners of this city of the West, and which has tended greatly to enhance the pleasure of the session here of the delegates from abroad."

The President of the Association gloried in the progress that it had made in uniting the medical profession so that it could speak with one voice and in rallying physicians everywhere around higher standards.

AMERICAN MEDICAL LITERATURE

S. D. Gross of Louisville presented the significant report on American medical literature, analyzing the causes for its backwardness in the tradition of the original essay by Oliver Wendell Holmes. His main criticism was a lack of independence in the journalism of that day with its leaning on materials coming from abroad. He urged physicians to utilize their private and hospital practice for the study of cases which should be reported in American medical journals. And he offered as a resolution "That this Association earnestly and respectfully recommend, first, the universal adoption, whenever practicable, by our schools, of American works as textbooks for their pupils; secondly, the discontinuance of the practice of editing foreign writings; thirdly, a more independent course of the medical periodical press toward foreign productions, and a more liberal one toward American; and, fourthly, a better and more efficient employment of the facts which are continually furnished by our public institutions for the elucidation of the nature of diseases and accidents and, indirectly, for the formation of an original, a vigorous and an independent national medical literature.

"That we venerate the writings of the great medical men, past and present, of our country, and that we consider them as an important element of our professional and national glory.

"That we shall always hail with pleasure any useful or valuable works emanating from the English press,

and that we shall always extend to them a cordial welcome as books of reference, to acquaint us with the progress of legitimate medicine abroad, and to enlighten us in regard to any new facts of which they may be the repositories."

Significant also was the report of the Committee on Plans for Organization of State and County Societies. It worked toward a unified organization, and it prepared the first constitution and by-laws for a state medical society.

1857

NASHVILLE

Nashville, Tenn., welcomed the doctors for the tenth annual meeting in 1857; bursts of Southern oratory reverberated in the air. Following is a paragraph from the address of welcome by Dr. C. K. Winston:

> You are the representatives of a profession distinguished alike for its antiquity, its scientific attainments and its usefulness. It constitutes the true link between science and philanthropy—science and philanthropy, moral, intellectual and physical. You come from every portion of this glorious republic—from the Kennebec to the Rio Grande—from orange groves and golden sands—from mountains clad in eternal snow and valleys smiling in perpetual verdure. You come not for purposes of self aggrandizement or personal ambition, nor yet to advance the schemes of parties or stir up the antipathies of sections. "You know no North, no South, no East, no West"; but you come as a company of philanthropists, a band of brethren, that you may pour the acquisitions of another year into a common treasury, kneel side by side at a common altar and drink the living water as it gushes from a common fountain. You have come to maintain the dignity, to elevate the ensign of a profession to which you have devoted your lives and to which you have linked your fortunes.

Protests were made against the admission of delegates from the Oglethorpe Medical College, Savannah, on the ground that the professorships had not been filled in physiology and materia medica at its sessions, but investigation revealed that all of the chairs but one had been filled and that the man was sick, so that the college was permitted to have its delegates.

Some of the committees which had regularly reported began to report that they had no report.

Now there began apparently to be some despair at the failure to progress in regulating education. Following a resolution demanding a minimum number of teachers and hours of study, an alternative resolution was offered to the effect that the Association did not have the power to control medical education and that it had most signally failed in its objective and had already introduced elements of discord. It was therefore recommended that a special committee be appointed to advise a system of medical instruction under which all medical institutions should be organized. There was great discussion but to no purpose.

A constitution for the state societies was adopted and, after hearing a number of scientific reports, the convention adjourned.

EDITORIAL OPINION OF THE ASSOCIATION

In 1855 Dr. D. M. Reese, editor of the *American Medical Gazette,* satirically minimized the work of the American Medical Association up to that time, saying:

> The conviction appears to be general, among writers, that notwithstanding the numerous reforms attempted, recommended and resolved on by repeated *"whereases"* and reiterated at every successive meeting by high-sounding resolutions, and published in each volume of the *Transactions,* yet, in *effectuating any one of these, after seven years' trial, the efforts of the Association in this regard have resulted in signal and utter failure.*

Editors of some other medical journals gave rise to sentiments of similar import. Dr. Nathan Smith Davis told them that their announcements of policy were premature. "It must be borne in mind," he said, "that our country is made up of more than thirty separate states; that the Association was, and is, not only destitute of legislative powers itself but also without access to any one legislative body possessing authority to regulate the education and interests of the profession of the whole country."

Little could any one have thought that another half century at least would be required before sufficient public opinion could be mustered within and without the medical profession to undertake a real drive for high standards in medical education.

Dr. B. Dowler, then editor of the *New Orleans Medical and Surgical Journal,* summarized the accomplishments of the first ten years of the American Medical Association in these words:

> As a social and professional *reunion* of kindred spirits and great minds, its memories afford perennial delight. It has given impetus to the progress of medical polity and science; it exercises moral suasion rather than that of authority; it has brought together a bright constellation of intellect, cemented the bonds of friendship among good men and true, and should it fail to effectuate its original and grand finality—that is, a thorough reform in medical education—it will leave a luminous track of light in the moral firmament of the Aesculapian heavens, throughout the expansions of the Republic.

(To be continued)

Clinical Notes, Suggestions and New Instruments

TWO DEATHS ASSOCIATED WITH SUPRADIAPHRAGMATIC VAGOTOMY

CARNES WEEKS, M.D.
BERNARD J. RYAN, M.D.
and
JOE M. VAN HOY, M.D.
New York

Supradiaphragmatic vagotomy has been associated with complications which resulted in death in 2 cases.

CASE 1.—*History.*—S. H., a white man aged 47, an unemployed salesman, was admitted to the First Surgical Division of Bellevue Hospital complaining of severe burning epigastric pain. He had had a known duodenal ulcer since 1931, with massive hematemeses on three occasions. Roentgenograms at another hospital one month before admission to Bellevue had again confirmed the diagnosis of duodenal ulcer. There was no evidence of obstruction, but pain had persisted since 1931 despite diet and an ulcer management regimen which had been punctuated by alcoholic bouts on frequent occasions.

Two years prior to admission he noted the onset of headache, nocturia and frequency. He was examined by a physician and told that he had hypertension. Since that time his bloood pressure had ranged continuously in the vicinity of 220 systolic and 140 diastolic. He had had frequent headaches and had been unable to concentrate for the past two years.

Physical Examination.—The patient was a middle-aged white man of florid complexion who was uneasy and restless. Relevant observations were limited to the following: The apex impulse of the heart was felt at the midclavicular line. The rhythm was regular and the beat was forceful. There were no murmurs. The blood pressure was 210 systolic and 140 diastolic. There was moderate tenderness in the epigastrium

From the First Surgical (Columbia) Division, Bellevue Hospital.

and both upper quadrants of the abdomen without spasm or rebound tenderness.

Laboratory Examination.—The hemoglobin level of the blood was 13.5 Gm. per hundred cubic centimeters; the white blood cells numbered 6,200; the Wassermann test was negative. Urinanalysis was negative with a specific gravity of 1.015; the nonprotein nitrogen level was 45 mg. per hundred cubic centimeters. Gastric analysis showed that the free hydrochloric acid was 110 units and the total acidity was 130 units one hour after histamine stimulation. A roentgenologic examination of the chest revealed moderate enlargement of the heart in the transverse diameter.

Course.—Because of the duration and severity of the patient's symptoms, it was decided that surgical intervention was indicated for his duodenal ulcer. It was planned to do a supradiaphragmatic vagotomy and if feasible at the time of the operation to perform a left thoracolumbar sympathectomy for his hypertension. He was prepared for the surgical procedure for four weeks on the hospital ward with frequent feedings and the intravenous administration of Amigen. He gained seven pounds (3 Kg.) during this time.

On June 19, 1946 a thoracotomy was performed with removal of the ninth rib on the left side. Both vagal trunks were well developed as they lay beside the lower third of the esophagus. Sections 3 cm. in length of both the right and the left vagus nerves were removed just above the diaphragm. The left thoracolumbar sympathetic chain was then removed from the fifth dorsal to the second lumbar nerve, inclusive, as well as the greater, lesser and least splanchnic nerves in this area. Microscopic examination showed that the tissue removed was typical of sympathetic ganglions and nerves. Subsequent to this surgical procedure, the patient did well, had a good appetite and did not complain of epigastric pain or distress. Gastric dilatation which developed on the fifth and sixth postoperative days was relieved by gastric aspiration.

On July 2, 1946 a right thoracolumbar sympathectomy, similar in extent to that on the left, was performed. The patient did well immediately after the operation but had gastric dilatation which was relieved by aspiration on the third, fourth, fifth and sixth postoperative days. His condition then gradually began to deteriorate. He became difficult to manage on the ward, could not get on with other patients and refused to keep himself clean or to cooperate with other patients. He demanded paraldehyde at frequent intervals and required large doses of chloralhydrate, barbiturate or paraldehyde to furnish adequate sedation. Except for anorexia, his complaints were not referable to his abdomen or his gastrointestinal tract to any degree but consisted chiefly of restlessness, anxiety and irritability. A psychiatric consultant made the diagnosis of anxiety neurosis. During this time he was up and about the ward but had extremely disturbed nights.

On the morning of July 17, 1946, fifteen days after the second stage of his thoracolumbar sympathectomy, the intern on the ward was called because the patient was being especially noisy. At that time he complained of pain in the lower quadrant on the right and left side. Examination of the abdomen was unsatisfactory because of the restlessness and uncooperativeness of the patient; the only positive observation was slight diffuse abdominal tenderness. Two hours later he suddenly went into shock, becoming cold, clammy and comatose, and passed a tarry stool. Blood pressure and radial pulse was unobtainable. He received oxygen, stimulants, 1,500 cc. of whole blood and 500 cc. of plasma but failed to respond and died twelve hours later.

Report of Autopsy.—Relevant observations at autopsy were limited to the following: An examination of the cranial cavity and brain was performed. The heart weighed 640 Gm. and the left side was hypertrophied. On opening the abdominal cavity, a good deal of foul-smelling gas escaped. There was about 1,500 cc. of brownish cloudy fluid and gross food particles in the abdominal cavity. The peritoneal surfaces were rough and not of their usual shiny appearance. The first part of the duodenum showed an indurated ulcerated area, rather sharply demarcated, with a perforation about 2.5 cm. in diameter through which gross particles had passed into the abdominal cavity. Section of tissue of the duodenal lesion revealed the typical microscopic picture of duodenal ulcer.

Comment.—This is the first reported case of a perforation of a duodenal ulcer following vagotomy. However, it is probably also the only case in which vagotomy has been combined with bilateral thoracolumbar sympathectomy. The sympathectomy may well have been the cause of failure here, since simultaneous ablation of the sympathetic nerves could have neutralized the beneficial effects of the vagotomy. The patient's failure to have the acute pain ordinarily associated with a perforated peptic ulcer may have been due to the removal of viscerosensory fibers probably associated with the sympathetic side of the autonomic nervous system.

CASE 2.—*History.*—B. M., a white man aged 55, who had been totally blind for fourteen years, was admitted to the First Surgical Division of Bellevue Hospital on July 11, 1946 complaining of epigastric pain of four days' duration. He had had a duodenal ulcer diagnosed roentgenologically at another hospital nine years previously. He had been treated during the interim on a medical regimen with diet and Sippy treatment. Recurrence of his symptoms required an admission to the medical service of Bellvue Hospital in 1940.

Physical Examination.—The patient was a middle-aged white man who was totally blind. Relevant observations were limited to the following: There were multiple excoriations of the skin of both legs and of the trunk, extending up as high as the neck. There were several lesions suggestive of scabetic burrows. The pupils did not react to light, there was no light perception, and the fundi showed optic atrophy bilaterally. The right arm had been disarticulated at the shoulder, and there was an old amputation of the tip of the right great toe. There was moderate tenderness with slight spasm in the right epigastrium. The heart was regular in rhythm and lacked enlargement, thrills or murmurs. The blood pressure was 140 systolic and 90 diastolic.

Laboratory Examination.—The red blood cell count was 4,110,000; the hemoglobin level was 11.0 Gm. per hundred cubic centimeters. Urinalysis was negative; the stool guaiac test was 3 plus on one occasion; the Wassermann test was negative. The overnight total gastric secretion was 0.430 cc., the fasting acidity was 63 units, the total acidity 89 units. The serum amylase determination was 53.4 units. Roentgenologic examination of the stomach and duodenum showed an ulcer of the first portion of the duodenum without disturbance of gastric motor function.

Course.—The patient was placed on rest in bed and on a progressive Sippy diet with a colloidal suspension of aluminum hydroxide given at the bedside. The scabies was satisfactorily treated with 5 per cent precipitated sulfur in wool fat and white ointment. The eye consultant believed that the optic atrophy of the patient was secondary to poisoning with methyl alcohol. The pain in his epigastrium continued intermittently. Due to the long standing history, the lack of satisfactory response to medicaments and the patient's inability to care for himself properly, it was decided that a surgical operation on the ulcers should be performed.

On Aug. 6, 1946 a thoracotomy was performed with removal of the eighth rib on the left side from the transverse process to the cartilaginous junction. The lung was densely adherent over its costal and diaphragmatic surfaces and was freed by sharp dissection. A small rent which was made in the lower part of the left lobe at the fissure was sutured with interrupted mattress sutures of fine catgut on an atraumatic needle. After freeing and delivering the lower esophagus just above the diaphragm, the right vagus nerve was identified and freed from its attachment to the esophagus for 5 cm. above the diaphragm. A bradycardia resulted, and the upper portion of the nerve was injected with a 1 per cent solution of procaine hydrochloride. About 4 cm. of the nerve was removed.

A few moments after sectioning the nerve, it was noted that the pulse had slowed to a rate of between 60 and 70. Shortly thereafter the anesthetist stated that she was having some difficulty with the patient's respiration. A wet pad was placed over the wound and all manipulations were halted. The anesthetist then noted that the patient's pulse had suddenly become

imperceptible, and on examination the heart beat was found to be absent. An opening was made in the pericardium, and massage of the heart was performed rhythmically. Oxygen was administered under pressure and 0.6 mg. of atropine was administered intravenously. After several minutes the heart began to beat feebly and irregularly. After continued massage for a few more minutes, the heart action became stronger and resumed a normal rhythm for a short while. It was necessary to massage the heart intermittently to maintain this rhythm.

When the heart was observed to be beating regularly and more forcefully, rib spreaders were removed and preparation was made to close the thoracic cage. The action of the heart, however, again became feeble and irregular and massage was reinstituted. Intravenous procaine hydrochloride (50 mg.) and repeated doses of atropine were administered to the patient for another hour. Intercardiac epinephrine was finally used as well without success. Normal cardiac action could not again be reestablished despite one hour and twenty minutes of cardiac massage, and the patient was pronounced dead at that time. Permission for an autopsy was not obtained. Microscopic examination of the specimen of vagus nerve removed showed typical nerve fibers.

Comment.—Since permission for autopsy was not obtained, assessment as to the cause of death must be in part speculative. The difficulty developed directly after manipulation and division of the right vagus nerve. Since respirations persisted after the circulatory collapse it may well be inferred that death was primarily associated with disturbance in the cardiovascular mechanism.

A somewhat similar case is reported by Moore, Chapman, Schulz and Jones.[1] The patient expired approximately forty-eight hours postoperatively of difficulties either related to the anesthesia or that could have resulted from hyperirritability of the autonomic nervous system with the setting up of vagovagal reflexes and resultant cardiac standstill. Since this experience the authors[1] have routinely anesthetized both vagus nerves above the point of manipulation with procaine hydrochloride and have given rather large doses of atropine either before or during the operation.

Reid and Brace[2] showed electrocardiographic changes consisting of extra systoles, both auricular and ventricular, delayed conduction time, slowing of the heart and ventricular escape during tracheal and bronchial manipulations with the various mechanical appliances used in closed types of anesthesia. Soma Weiss and Ferris produced similar electrocardiographic tracings by inflating a balloon in an esophageal diverticulum.[3] This leads one to suggest that manipulation of the vagus itself may often have a profound and occasionally an extremely deleterious effect on the cardiac mechanism.

1. Moore, F. D.; Chapman, W. P.; Schulz, M. D., and Jones, C. M.: Transdiaphragmatic Resection of the Vagus Nerves for Peptic Ulcer, New England J. Med. **234:** 242-251 (Feb. 21) 1946.
2. Reid, L. C., and Brace, D. E.: Irritation of the Respiratory Tract and Its Reflex Effect upon the Heart, Surg., Gynec. & Obst. **70:** 157-162 (Feb.) 1940.
3. Weiss, S., and Ferris, E. B.: Adams Stokes Syndrome with Transient Complete Heart Blocks of Vagovagal Reflex Origin: Mechanism and Treatment, Arch. Int. Med. **54:** 931-951 (Dec.) 1934.

A Peripheral Nerve Registry.—Perhaps the most significant contribution made by army neurosurgeons during the war had to do with peripheral nerve injuries. This is a problem which can be solved only during war. The busiest civilian clinics do not see enough material to permit authoritative conclusions as to the management of these injuries. Unfortunately, in World War I, in spite of the large number of peripheral nerve injuries, the opportunity was lost, because no comprehensive and accurate follow-up studies were made. We are now in process of finding out exactly what happens to peripheral nerve injuries and how they are best treated. A peripheral nerve registry was instituted in the early months of 1944 and to date some 8,000 peripheral nerve sutures have been registered in it and are being reported on, as to progress, at regular intervals. Plans have been made to transfer the registry to the Veterans Administration for the final phase of the study, with Colonel Woodhall, who initiated the undertaking, remaining in charge of it.—Spurling, R. Glen: Neurosurgery in World War II, *Bull. U. S. Army M. Dept.*, December 1946.

Council on Pharmacy and Chemistry

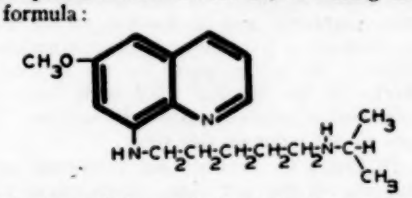
REPORT OF THE COUNCIL

The Council has authorized publication of the following statement.

AUSTIN SMITH, M.D., *Secretary.*

PENTAQUINE, NONPROPRIETARY NAME FOR 6-METHOXY-8-(5-ISOPROPYL-AMINOAMYLAMINO)-QUINOLINE

Recently there has been developed a new effective antimalarial chemical compound known as SN 13,276 having the following structural formula:



6-Methoxy-8-(5-isopropylaminoamylamino)-quinoline.

The compound was investigated through parallel studies with pamaquine and other 8-aminoquinolines, conducted at civilian centers under the sponsorship of the Committee on Medical Research of the Office of Scientific Research and Development and various army installations.

Through a spokesman for the Board for the Coordination of Antimalarial Studies, it was proposed that the Council give consideration to the name Pentaquine as a suitable designation for this compound.

After due consideration of its antimalarial status and deliberation to ascertain the chemical suitability and freedom from confusion with other names now in use in this country, the Council voted to adopt the proposed name Pentaquine as the nonproprietary name for the new antimalarial compound previously designated as Sn 13,276.

NEW AND NONOFFICIAL REMEDIES

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

AUSTIN SMITH, M.D., *Secretary.*

PHENOBARBITAL (See New and Nonofficial Remedies, 1946, p. 530).

The following dosage forms have been accepted:

THE HARROWER LABORATORY, INC., GLENDALE, CALIF.

Tablets Phenobarbital: 32 mg.

THE VALE CHEMICAL CO., INC., ALLENTOWN, PA.

Tablets Phenobarbital: 16 mg., 32 mg. and 0.1 Gm.

THIAMINE HYDROCHLORIDE (See New and Nonofficial Remedies, 1946, p. 618).

The following dosage forms have been accepted:

WILLIAM H. RORER, INC., PHILADELPHIA

Tablets Thiamine Hydrochloride: 1 mg. and 5 mg.

Solution Thiamine Hydrochloride, 50 mg. per cc.: 10 cc. vials. Preserved with 0.5 per cent chlorobutanol.

BACTERIAL VACCINE MADE FROM HEMOPHILUS PERTUSSIS (See THE JOURNAL, Jan. 5, 1946, p. 31).

The following dosage forms have been accepted:

E. R. SQUIBB & SONS, NEW YORK

Pertussis Vaccine (Single Strength): 8 cc. and 24 cc. vials. 10,000 million *H. pertussis* per cubic centimeter. Preserved with phenol 0.5 per cent.

Pertussis Vaccine (Double Strength): 5 cc. and 20 cc. vials. 20,000 million *H. pertussis* per cubic centimeter. Preserved with phenol 0.5 per cent.

PERTUSSIS VACCINE ALUM PRECIPITATED (See THE JOURNAL, Jan. 5, 1946, p. 31).

The following dosage form has been accepted:

THE UPJOHN CO., KALAMAZOO, MICH.

Pertussis Vaccine (Alum Precipitated): 3 cc. vials (one immunization) and 10 cc. vials (three immunizations). 10,000 million *H. pertussis* per cubic centimeter. Preserved with phenol 0.5 per cent.

PERTUSSIS VACCINE COMBINED WITH DIPHTHERIA TOXOID (See THE JOURNAL, Jan. 5, 1946).

The following dosage form has been accepted:

THE UPJOHN CO., KALAMAZOO, MICH.

Pertussis Vaccine, Diphtheria Toxoid, Combined, Alum Precipitated: 3 cc. vials (one immunization) and 10 cc. vials (three immunizations). 10,000 million *H. pertussis* per cubic centimeter. Preserved with sodium ethyl mercuri thiosalicylate 1:10,000.

PENICILLIN OINTMENT (See THE JOURNAL, Nov. 2, 1946, p. 515).

The following dosage form has been accepted:

SCHENLEY LABORATORIES, INC., LAWRENCEBURG, IND.

Penicillin Calcium Ophthalmic Ointment: 3.54 Gm. tubes. Each gram contains 2,000 units of penicillin calcium in white petrolatum, U. S. P.

EPHEDRINE SULFATE (See New and Nonofficial Remedies, 1946, p. 286).

The following dosage form has been accepted:

THE HARROWER LABORATORY, INC., GLENDALE, CALIF.

Capsules Ephedrine Sulfate: 24 mg. and 49 mg.

Council on Physical Medicine

The Council on Physical Medicine has authorized the following report for publication on the recommendation of its Consultants on Contraceptive Devices. The Council wishes to express its appreciation for the valuable assistance rendered in the preparation of this report to its consultants: Drs. Nicholas J. Eastman, Walter W. Greulich, Joseph Hughes, Andrew C. Ivy (Chairman), Walter J. Meek and Ephraim Shorr.

HOWARD A. CARTER, *Secretary.*

REQUIREMENTS FOR ACCEPTABILITY OF CONTRACEPTIVE DEVICES

The following requirements for the acceptability of contraceptive devices of a physical nature, such as diaphragms and caps, stems and rings, tampons and sponges, devices for insertion, condoms and sheaths, have been proposed by the Consultants on Contraceptive Devices of the Council on Physical Medicine. These have been adopted by the Council, but it should be emphasized that they may be changed from time to time as the evidence indicates.

I. *Acceptable Evidence:*

A. Medical evidence to be acceptable must have been collected by physicians with special experience in the field of contraception or obstetrics and gynecology.

B. Evidence regarding the physical and chemical characteristics of the device must have been collected by individuals competent in the field.

II. *Efficacy:*

The device shall meet the following test of effectiveness: Each patient shall be observed for a minimum of twelve months. The minimum patient-years experience shall be seventy-five years. This may be obtained by observing 75 patients for one year, 50 patients for eighteen months or preferably 38 patients for two years or 25 patients for three years. Only patients pronounced as presumably fertile shall be used. If patients are excluded from the series on the basis of their being irregular users, the number excluded and the nature of the evidence justifying their exclusion shall be provided. The device shall provide a degree of protection as great as is consistent with good practice concerning the article under consideration, the protection to be obtained in women who have been compared with others habitually practicing no contraception.

III. *Harmlessness:*

A. Evidence shall be submitted showing that 100 or more couples have used the device on six or more occasions without subjective injury or sensations of pain, distress or discomfort. The refusal rate and the cause thereof shall be provided for this group of 100 patients and for the group of patients used for obtaining seventy-five or more patient-years of experience.

B. Evidence shall be required showing that the device had been used by 20 or more patients on twenty-one successive days without irritation or injury or evidence of physical damage as disclosed by examination with a speculum. This evidence is to be supplied in addition to similar evidence obtained on the group of patients used to establish efficacy in seventy-five patient-years of experience.

C. Where the device is a brand of a type previously known to or accepted by the Council on Physical Medicine, the evidence required by the two preceding paragraphs may be waived.

IV. *Design:*

A. The design of the device and accessories shall be satisfactory to the Council.

B. If a syringe applicator or nozzle is furnished for use in connection with a jelly or cream, it shall be sufficiently translucent to permit the detection of air which might lead to inadequate dosage.

V. *Durability:*

A. Condoms must have a shelf life of at least one year, and the date of expiration shall be stamped on the package so as to be readily seen by the purchaser. The shelf life test shall be conducted at a temperature of 37 C. and a humidity of from 10 to 30 per cent. At the end of the test or the expiration date stamped on the package, the condom shall not permit the passage of air when it is distended with air under a pressure of 0.2 pound per square inch and immersed in water.

B. The package containing a diaphragm shall be stamped with the date of manufacture. The instructions packed with the diaphragm shall show the date of manufacture, and the instructions shall provide the life expectancy on the basis of evidence submitted to the Council regarding the shelf life and the use life in combination, and when used with a known and acceptable jelly or cream. At the end of the life expectancy claimed, the diaphragm shall not permit the passage of water or a methylene blue solution under a pressure of ½ pound per square inch, the test being conducted so as to detect leaks about the rim.

VI. *Directions to Users and Advertising:*

A. The directions shall include a warning that the user should not expose the device to agents such as ordinary oils and greases or hot water, which will damage the device. Evidence shall be submitted showing the ordinarily available agents which damage and do not damage the device.

B. The directions shall include the appropriate means for cleansing the device.

C. The directions packed with each device whose performance depends on an intact membrane shall direct the user to inspect the device for holes and tears and to discard it if one is found.

D. The advertising and directions of the manufacturer shall make it clear that contraceptive diaphragms (and caps), tampons and sponges are intended for use in conjunction with spermicidal jelly or cream and should direct attention only to those accepted by the Council on Pharmacy and Chemistry.

E. The advertising and directions must not state or imply that the appropriate diaphragm or cap, or other device, can be chosen without the aid of a physician.

F. The advertising and directions and other printed matter packed with the device shall be satisfactory to the Council.

G. The results of the investigation by the Council of devices submitted will be published, but the use of the "seal of acceptance" will not be allowed.

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SATURDAY, DECEMBER 21, 1946

THE HOUSE OF DELEGATES MID-WINTER SESSION

The first interim session of the House of Delegates was held in Chicago at the headquarters of the American Medical Association, December 9 to 11. The attendance by practically every delegate entitled to be present or by an alternate indicated the interest in the work of the organization.

Among the topics considered attention centered particularly on the report relative to the public relations of the Association; the revision of the Constitution and By-Laws; continued progress in the development of prepayment plans for medical costs; the medical care of miners, with a report by Admiral Boone on the survey now being conducted under his direction; the establishment of representation for the Veterans Administration in the Fellowship of the Association and in the House of Delegates; membership for general practitioners on hospital staffs; the plans for celebration of the centennial of the American Medical Association, and the report of the judicial council on brutal experiments by Nazi physicians. Other resolutions dealt with the functions of various agencies of the American Medical Association.

In this issue appear some of the minutes of the proceedings of the House of Delegates. The remainder will be published in issues that follow. Much of the discussion was held in executive session, and because it deals with intimate affairs of the Association these proceedings will appear in condensed form. As was emphasized in The Journal after the annual session of the Association last June, the report on public relations led to actions of the Board of Trustees making immediately effective certain recommendations. Thus there is now in the headquarters of the Association a division of public relations under an executive assistant to the general manager. This division will have the responsibility for the public relations activities of all councils, bureaus, publications and other agencies and operations of the Association. The activities include the preparation of a news letter for county and state medical societies; releases of information to the press and radio; assistance in the preparation of pamphlets and brochures, and the general function of interpretation of the Association and its work to the public.

A significant action of the House of Delegates was the amendment of the By-Laws so that general officers and delegates will now be eligible for election to the presidency of the Association. In former years it has been necessary for the person selected for such honor to resign from the position held before nomination could be made.

So significant were many of the actions taken by this session of the House of Delegates that it is hoped every physician will study the minutes carefully. The amazing rapidity of growth of the Association and the multiplicity of its functions have indicated for some time the necessity for more formal assignment of various activities and considerations to its various agencies. No doubt increased efficiency will become apparent as these measures begin to be properly established and coordinated.

FRIEDLÄNDER'S PNEUMONIA

Friedländer in 1882 described an encapsulated bacillus [1] which he believed was the chief etiologic agent of lobar pneumonia. His report was based, unfortunately, on postmortem findings, which, judged by more modern bacteriologic experience, are of doubtful value. A few years later other investigators [2] demonstrated conclusively that the common cause of lobar pneumonia is the pneumococcus. Nevertheless the concept that Friedländer's bacillus is associated with pneumonia and other respiratory tract infections pervaded textbooks and periodical medical literature for more than fifty years. Some investigators found that pneumonia due primarily to Friedländer's bacillus is relatively uncommon, if not a clinical rarity. Other writers have contended that in a small though definite percentage of cases of pneumonia Friedländer's bacillus is the primary cause.

Baehr, Shwartzman and Greenspan [3] reported that only 2 proved cases of primary Friedländer's pneumonia were observed at the Mount Sinai Hospital in New York in thirty-six years. The 198 Friedländer bacillus infections reported by them were in large part of the gastrointestinal tract, the genitourinary tract and the biliary tract; pneumonia and other upper respiratory infections were fourth in their list. Of 61 cases in which the intra-abdominal suppuration was apparently due to this organism, 53 were abscesses of the appendix. Friedländer's bacillus was far more commonly found in infections following perforations of the intestinal tract than in infections of any other organ. They reported

1. Friedländer, Carl: Ueber die Schizomyceten bei der acuten fibrinösen Pneumonie, Virchows Arch. f. path. Anat. **87**: 319, 1882.

2. Fraenkel, A.: Weitere Beiträge zur Lehre von den Mikrococcen der genuinen fibrinösen Pneumonie, Ztschr. f. klin. Med. **2**: 437, 1886. Sternberg, Y. M.: The Pneumonia-Coccus of Friedländer, Am. J. M. Sc. **90**: 106, 435, 1885.

3. Baehr, George; Shwartzman, Gregory, and Greenspan, Edward B.: Bacillus Friedländer Infections, Ann. Int. Med. **10**: 1788 (June) 1937.

46 cases of suppurative infections of the biliary tract, in 43 of which Friedländer's bacillus was present in the pus in pure culture. The mortality among the 46 cases was high, owing in part to abscesses of the liver secondary to infection of the gallbladder or biliary passages. Recently [4] the first case of primary peritonitis caused by Friedländer's bacillus was reported. In this unusual case, in which rapid recovery occurred under sulfadiazine therapy, the pharynx was thought to be the port of entry of the bacillus to the blood stream through which the peritoneum was infected. Friedländer's bacillus, cultures of which were taken from the pharynx in this case four days after admission, is a normal inhabitant of the upper respiratory tract in a small percentage of normal persons.

Solomon [5] reviewed the pneumonia records of four medical divisions of the Bellevue Hospital from 1920 to about 1937 and found 32 acute cases of primary pneumonia caused by Friedländer's bacillus alone, not including 10 chronic cases and a large number in which Friedländer's bacillus was found in association with the pneumococcus, streptococcus or tubercle bacillus. Friedländer's pneumonia, Solomon believes, is much more common than is generally realized. The diagnosis can be readily suspected and quickly confirmed if its distinguishing features are kept in mind. The prognosis is more serious than in pneumonia due to other organisms.

Friedländer's bacillus (Bacillus mucosus capsulatus, the pneumobacillus or Klebsiella pneumoniae) is sometimes long, sometimes almost coccoid, nonmotile and gram negative. Julianelle [6] classified the strains by immunologic reactions into three specific types, A, B and C, which comprise the great majority of strains noted clinically. The distinctions in type depend on the presence of a specific carbohydrate in the capsular material, slightly different for each type, which is the soluble specific substance excreted in the urine. As with other organisms, both smooth and rough strains are found. Smooth strains produce capsules, are type specific and are highly virulent; the rough strains do not produce capsules and are not pathogenic.

Friedländer's pneumonia is said to comprise from 0.5 to more than 5 per cent of all cases of pneumonia. In the 5,000 cases of pneumonia reviewed by Solomon, among which 32 due to Friedländer's bacillus were found, the incidence was about 0.6 per cent, which was considered unquestionably low for reasons stated.

Certain characteristics distinguish the cases from the usual cases of pneumonia or other pulmonary conditions. Friedländer's pneumonia occurs in the later decades, the average age being 48.7 years. There is a distinct preponderance of males over females, the ratio being 7 to 1. Hemoptysis frequently occurs with the onset. Herpes is not common. The temperature is less regular. Low grade fever is much more common than in pneumococcic pneumonia. Involvement of the upper lobe and of more than one lobe is frequent. The sputum is a brick red, homogeneous emulsion of blood and mucus, in contrast to the ropy rusty sputum of pneumococcic pneumonia. Friedländer's bacillus is found in pure culture in the sputum and frequently in the blood culture. The mortality rate is high, and death occurs in an earlier stage of the disease than in pneumococcic pneumonia.

4. McDonald, Roger K., and Klingon, Gerald H.: Primary Peritonitis Caused by Friedländer's Bacillus, Arch. Surg. **53**: 477 (Oct.) 1946.

5. Solomon, Saul: Primary Friedländer Pneumonia, J. A. M. A. **108**: 937 (March 20) 1937.

6. Julianelle, L. A.: A Biological Classification of Encapsulatus Pneumoniae (Friedländer's Bacillus), J. Exper. Med. **44**: 113 (July), 683 (Nov.), 735 (Dec.) 1926; The Distribution of Friedländer's Bacilli of Different Types, ibid. **52**: 539 (Oct.) 1930.

THERAPEUTIC POSSIBILITIES OF CURARE

Claude Bernard demonstrated that curare acts not on the nerve or on the muscle but on the myoneural junction. He pointed out the necessity of isolating the active chemical principle of the crude drug. This was accomplished by King and by Wintersteiner and Dutcher. The isolated pure crystalline substance, tubocurarine, belongs to a group of compounds known as quaternary ammonium salts. These salts possess the property of paralyzing neuromuscular conduction at the myoneural junction. The present day concept of curare therapy, according to Schlesinger,[1] does not propose to paralyze the myoneural junction but to create a block to the abnormal impulses imposed on the myoneural junction by the disease. A therapeutic effect is obtained without the loss of voluntary power.

Schlesinger reports the therapeutic effects in a group of 200 patients who have received a total of 1,500 injections of a suspension of d-tubocurarine chloride in white wax and oil. The proportions of the suspension are 3 per cent tubocurarine in 4.8 per cent wax in peanut oil. One cc. of the suspension contains the equivalent of 175 units of standard curare. The preparation is well standardized and its action predictable, milligram for milligram. It is given by either the subcutaneous or the intramuscular route. The following types of disorders were reported in this series: I. Muscle spasm, as in (*a*) direct trauma to muscle, (*b*) low back syndrome, (*c*) orthopedic deformities with reflex spasm, (*d*) myositis, (*e*) arthritis. II. Spasticity, as in (*a*) degenerative diseases of the central nervous system, (1) multiple sclerosis, (2) disseminated sclerosis, (3) familial lateral sclerosis; (*b*) spinal cord injury, (*c*) cerebrovascular disease, (*d*) tumors of the brain and spinal cord. III. Spasticity with dystonic features (Little's disease, cerebral diplegia). IV. Dystonia and athetosis. V. Rigidity, as in Parkinson's syndrome.

In the group characterized by spasm the results were gratifying, all degrees of spasm yielding to treatment, although when the pain was based on root compression,

1. Schlesinger, E. B.: Recent Advances in the Use of Curare in Clinical Practice, Bull. New York Acad. Med. **22**: 520 (Oct.) 1946.

residual root pain remained after complete reduction of reflex muscle spasm. This response, according to Schlesinger, can be used diagnostically in ruling out root compression as a causative factor in a clinical picture. In the spastic group it was found generally possible to increase motor efficiency by eliminating the increased excitability of the streteh reflex. It was always possible to increase the patient's motor power by reducing the spastic element. Voluntary power was unaffected at dosage levels sufficient to relieve spasticity. In every case the gait was improved by this effect. Retraining enhanced this new level of performance strikingly. In the group of birth injuries, cerebral diplegia or spasticity with dystonic features, improvements were obtained in this sequence: (1) speech, (2) ability to sit quietly, (3) gait and (4) eating, writing and the performance of all skilled motor activities. These patients have maintained their improvement on doses twice weekly. In dystonia and athetosis it was possible to reduce spontaneous movements so that patients could sit quietly for reasonable periods, make active exercise and motor training possible and improve sleep. In patients with Parkinson's disease it was possible partially to relieve rigidity and to improve sleep. Toxic effects on any organ or system or changes in body economy or general well being were not noted. There was no tendency to habituation. There exist certain contraindications to the curare therapy, in particular any myasthenic tendency and kidney disease.

Current Comment

SYNTHESIS OF PENICILLIN

Eleven months ago the first announcement of the probable chemical nature of penicillin, a joint report of the American and British investigators in this field,[1] appeared in *Science*. At this time two possible formulas were presented which differed only in subtle molecular rearrangements. Recently du Vigneaud and his associates [2] have succeeded in synthesizing penicillin; they coupled penicillamine, a compound related to the unnatural isomer of the amino acid cysteine, with an oxazolone. It was proved conclusively, by using many of the newer tools of science, that penicillin was synthesized in these reactions. The actual reactions involved in this synthesis are still too complicated to warrant the definite statement that the synthesis proves the structure of the compound. While the amounts of penicillin synthesized were minute, the great importance of this accomplishment is that new drugs related to penicillin can now be produced. There is no indication that this accomplishment will permit the production of synthetic penicillin commercially in the near future or in any way affect the price of present commercial supplies.

1. Chemistry of Penicillin, Science **102**: 627 (Dec. 21) 1945.
2. du Vigneaud, V.; Carpenter, F. H.; Holley, R. W.; Levermore, H. H., and Rochele, J. R.: Science **104**: 431 (Nov. 8) 1946.

ARMY DEFERMENT OF INTERNS

A recent directive from the War Department provides for an extension of deferments for 1,500 interns who hold army commissions. The directive is given elsewhere (page 1017) in this issue. For 1,200 interns the extension will be from July 1, 1947 to Jan. 1, 1948. For 300 there will be a deferment from July 1, 1947 to July 1, 1948. In regard to the latter group, "priority will be given to university and teaching hospitals." It is urged by the Council on Medical Education and Hospitals that hospitals utilize these men on an internship basis so that residency places available for veterans who are physicians will not be reduced in number. Intern officers and hospital authorities should become familiar with the new regulations at once, since deferments will be granted on a first come, first served, basis until the quota is filled.

EFFECT OF ANTIRETICULAR CYTOTOXIC SERUM ON THE HEALING OF FRACTURES

In 1944 Bogomolets [1] reported that experiments on 800 rabbits indicated that small doses of antireticular cytotoxic serum accelerated the healing time of fractures about one and one-half times as compared with the healing of fractures in nonstimulated animals. Large doses of the serum apparently retarded the healing time of the fractured bones. Control experiments utilizing the serum of a nonimmunized animal of the same species did not have the stimulating effect that antireticular cytotoxic serum had, thus demonstrating that the stimulating action of the antireticular cytotoxic serum is not one of a nonspecific protein reaction. Recently Straus and his associates [2] repeated the same experiments with slight modifications. One hundred and fifty-six female rabbits were separated into four groups, one being given "stimulating" doses of antireticular cytotoxic serum another "depressing" doses of antireticular cytotoxic serum, a third normal goat serum equivalent in volume to the "stimulating" dose of antireticular cytotoxic serum and the fourth normal goat serum in a volume equivalent to the "depressing" dose of antireticular cytotoxic serum. The extent of healing of the fractures was evaluated roentgenographically, by gross and microscopic examination of the tissue and by measuring the breaking strength of the line of union. The results indicated differences between the "stimulated" and "depressed" groups of animals and their respective controls. Statistical evaluation of the breaking strength of the healed fractures indicated significant differences between each of the groups and its control. The experiment was repeated on two additional occasions with similar results. The Los Angeles investigators conclude that stimulation of the healing of experimentally produced fractures in rabbits can be induced with small doses of antireticular cytotoxic serum and depression of healing with large doses, as claimed by the Soviet investigators.

1. Bogomolets, O. A.: Influence of the Antireticular Cytotoxic Serum (ACS) on Healing of Bone Fractures, Kiev, 1944, reviewed in THE JOURNAL, August 24, p. 1467.
2. Straus, R.; Horwitz, M.; Levinthal, D. H.; Cohen, A. L., and Runjavac, Mildred: Studies on Antireticular Cytotoxic Serum: III, J. Immunol. **54**: 163 (Oct.) 1946.

ORGANIZATION SECTION

PROCEEDINGS OF THE CHICAGO SESSION

MINUTES OF THE SUPPLEMENTAL SESSION OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION, HELD IN CHICAGO, DECEMBER 9-11, 1946

HOUSE OF DELEGATES

First Meeting—Monday Morning, December 9

The House of Delegates convened in the Assembly Room of the building of the American Medical Association, 535 North Dearborn Street, and was called to order at 10:15 a. m. by the Speaker, Dr. R. W. Fouts.

Preliminary Report of the Reference Committee on Credentials

Dr. G. Henry Mundt, Chairman, stated that 133 delegates had registered up to the present time. He requested the wishes of the House with respect to the seating of the delegate from the Section on the General Practice of Medicine, who was not provided for under the apportionment of delegates in effect at this session. On motion of Dr. Holman Taylor, Texas, seconded by several delegates and carried, the House voted to seat at this session the delegate from the Section on the General Practice of Medicine.

Roll Call

The Secretary called the roll and announced that a quorum was present.

Adoption of Proceedings of San Francisco Session in 1946

On motion of Dr. J. Stanley Kenney, New York, seconded by Dr. Burt R. Shurly, Section on Laryngology, Otology and Rhinology, and carried, the proceedings of the San Francisco session of the House of Delegates held in 1946 were adopted as printed.

Address of Speaker, Dr. R. W. Fouts

The Vice Speaker, Dr. F. F. Borzell, Pennsylvania, presided while the Speaker of the House read his address as follows, which was referred to the Reference Committee on Reports of Officers:

Mr. Speaker, Members of the House of Delegates and Guests:

It is again my privilege and distinct pleasure to call to order this body of distinguished workers. In so doing I desire to express my sincere appreciation for the implied confidence expressed by you in placing this responsibility on me.

That this House is composed of distinguished men with far reaching vision is evidenced by the many policies evolved during past years that are now serving to guide American medicine through the vicissitudes of these changing times. I bespeak for this session's activities a continuation of these principles and policies and a sober consideration of all questions presented at this session. I believe this to be the most important session held since I became a member of this House, which is more than a quarter of a century, as our actions today may set the pattern for the future of organized medicine. Let us approach each problem in a spirit designed for the purpose of accomplishing the greatest good for American medicine, as it affects our patients as well as ourselves.

Permit me to assure you again that it is your Speaker's untrammeled and unrestrained effort to see that the long established rules of procedure of the House are observed and carried out to the letter.

Your Speaker would again urge that more attention be given by the delegates to the hearings on the various resolutions by the respective reference committees. Far too often has a reference committee reported that only two or three, and sometimes no one, appeared to discuss pending resolutions.

Every delegate has the right to expect and will be given the privilege of the floor to ask a question or express his views on any matter pending before this House. May I urge that you be alert and exercise this privilege to the end that only the best possible results may obtain from our deliberations. Tremendous responsibilities rest with each and every delegate. Let us discharge these obligations in such manner as to reflect credit on every one concerned and obviate some of the criticism that has at times emanated from misunderstanding or the uninformed.

And now, conforming to precedent, it becomes my duty to request that we pause to pay tribute to those Fellows who have served in this House and whose life's activities have ceased since our last session. The list of names will be presented at our June meeting.

Reference Committees

In the selection of reference committees, your Speaker has again given consideration to the representation accorded each state on various Councils, Bureaus and the Board of Trustees. An earnest endeavor has been made to give just representation to every state.

The Speaker requested permission to appoint three additional reference committees, which was granted by the House. The personnel of all reference committees as appointed by the Speaker follows:

SECTIONS AND SECTION WORK

Wingate M. Johnson, North Carolina, Chairman.
Roy B. Henline, Section on Urology.
Jesse D. Hamer, Arizona.
Albert F. R. Andresen, New York.
Claude R. Keyport, Michigan.

RULES AND ORDER OF BUSINESS

Edward P. Flood, New York, Chairman.
James P. Kerby, Utah.
Mather Pfeiffenberger, Illinois.
Richard D. Simonton, Idaho.
William D. Stovall, Wisconsin.

MEDICAL EDUCATION

J. F. Hassig, Kansas, Chairman.
A. W. Adson, Minnesota.
Leland S. McKittrick, Massachusetts.
Alfred S. Giordano, Indiana.
Henry B. Mulholland, Virginia.

HYGIENE AND PUBLIC HEALTH

Don F. Cameron, Indiana, Chairman.
Thomas S. Cullen, Maryland.
Charles R. Rountree, Oklahoma.
Thomas K. Gruber, Michigan.
Thomas A. Foster, Maine.

LEGISLATION AND PUBLIC RELATIONS

Charles H. Phifer, Illinois, Chairman.
Thomas P. Murdock, Connecticut.
John J. Masterson, New York.
Lowell S. Goin, California.
Edward Jelks, Florida.

AMENDMENTS TO CONSTITUTION AND BY-LAWS

Allen H. Bunce, Georgia, Chairman.
K. S. J. Hohlen, Nebraska.
James Z. Appel, Pennsylvania.
Hugh P. Smith, South Carolina.
Edward H. McLean, Oregon.

REPORTS OF OFFICERS

John W. Cline, California, Chairman.
A. R. McComas, Missouri.
James Q. Graves, Louisiana.
Ivan Fawcett, West Virginia.
Raymond L. Zech, Washington.

REPORTS OF BOARD OF TRUSTEES AND SECRETARY

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Edgar P. McNamee, Ohio.
Guy W. Wells, Rhode Island.
James P. Wall, Mississippi.
L. J. Kosminsky, Arkansas.

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G. Henry Mundt, Illinois, Chairman.
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H. B. Everett, Tennessee.
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Raymond F. Peterson, Montana.

MISCELLANEOUS BUSINESS

William A. Coventry, Minnesota, Chairman.
R. B. Anderson, Texas.
George A. Woodhouse, Ohio.
Warren L. Allee, Missouri.
William F. Costello, New Jersey.

EXECUTIVE SESSION

Elmer Hess, Pennsylvania, Chairman.
William Weston, Section on Pediatrics.
J. B. Lukins, Kentucky.
Holman Taylor, Texas.
Deering G. Smith, New Hampshire.
W. T. H. Baker, Colorado.
Thomas F. Thornton, Iowa.

TELLERS

James Beebe, Delaware, Chairman.
John W. Green, California.
Theodore H. Harwood, Vermont.

SERGEANTS-AT-ARMS

Frank E. Reeder, Michigan, Chairman.
H. Russell Brown, South Dakota.
Moreton J. Thorpe, Nevada.

MEDICAL SERVICE

Herbert H. Bauckus, New York, Chairman.
L. Howard Schriver, Ohio.
George P. Johnston, Wyoming.
Joseph H. Howard, Connecticut.
J. Stanley Kenney, New York.

EMERGENCY MEDICAL SERVICE

Walter G. Phippen, Massachusetts, Chairman.
C. B. Conklin, District of Columbia.
Stephen E. Gavin, Wisconsin.
George Braunlich, Iowa.
Grover C. Penberthy, Section on Surgery, General and Abdominal.
Arden Freer, U. S. Army.
John Harper, U. S. Navy.

Address of the President, Dr. H. H. Shoulders

The Speaker presented the President, Dr. H. H. Shoulders, who addressed the House as follows:

Mr. Speaker and Members of the House of Delegates:

It was with my entire approval that the decision was made that you would not hear an address from the President and the President-Elect, because such action would delay the proceedings of the House. But while I have the floor and may not get it again, I should like to take occasion to make two or three observations.

First I should like to observe that we are meeting now in a different atmosphere from that which existed in July and from that which has been in existence for quite some time. We now are in an atmosphere that approaches freedom—the freedom to go forward in the accomplishment of the great mission of medicine.

I have no suggestion with respect to change of fundamental policies. On the contrary, I think their usefulness and effectiveness and wisdom have been demonstrated in the crucible of time and experience, and fundamental policies should not be altered.

Second, there should be no let-up in our efforts to extend medical care as far as possible, and the adoption of new financial technics which will make it more available, probably—the financing of it at least—to people of moderate means.

I would make the observation also that my contact with the profession has been rather broad for me in the last six months, and I have formed the impression that the American Medical Association is not a weak organization but, on the contrary, is a strong organization. It is an organization with a past, a past of which we can be proud, and a future of which we can be hopeful.

Address of the President-Elect, Dr. Olin West

The Speaker presented the President-Elect, Dr. Olin West, who addressed the House as follows:

Mr. Speaker, I thank you for your very gracious reception. I was informed there were to be no speeches by the President and President-Elect. I will take time only to do one thing, and that is to commend especially the last sentence in the address delivered by Dr. Shoulders.

I have confidence that the American Medical Association, with all the progress that it has made, will continue to progress in its efforts to promote the art and science of medicine, in spite of any bickering, in spite of any destructive criticism. I believe that the profession and the public still have confidence in the American Medical Association, and I could give you many reasons for that belief.

I wish I could take enough of your time to tell you some of those reasons and to tell you of the progress that has been made and is being made today in carrying out the aims and objects of this Association as defined in its Constitution.

I hope the deliberations of this House at this session will contribute to further progress on the part of this organization, which, in my opinion, is the greatest of its kind in all the world.

I thank you.

REPORTS OF OFFICERS

Report of Board of Trustees

Dr. R. L. Sensenich, Chairman, Board of Trustees, presented the following report of the Board of Trustees, a mimeographed copy of which had been distributed to each member of the House, and which was referred to the Reference Committee on Reports of Board of Trustees and Secretary:

To the Members of the House of Delegates of the American Medical Association:

The following ad interim report relative to the functions and activities of the various Councils, Bureaus and Departments of the Association is respectfully submitted. This will be augmented by a supplementary report to be presented personally by the Chairman of the Board of Trustees.

The Journal of the American Medical Association

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION has now reached the highest point of circulation in its history, approximating over 130,000 weekly. The scope of its content is controlled to some extent by the shortage of paper and of personnel, but it now includes adequate presentation of practically every phase of the advancement of medical science and the interest in medical affairs. Recently THE JOURNAL has begun publication of portions of the "History of the American Medical Association" with a view to the publication of the complete work in book form in time for the Centennial Celebration.

Special Journals

The special journals of the American Medical Association continue to maintain leadership in their fields, but the Association Press has been greatly handicapped in recent months by a shortage of personnel and by labor regulations which greatly diminish the amount of time available for the services of the personnel at hand. Hence practically all of the special periodicals are appearing slightly late, and it is impossible to say, until difficulties with labor shall have been adjusted, when it will be possible again to restore these publications to their usual schedules.

Hygeia, the Health Magazine

During the past four years the circulation of HYGEIA, the Health Magazine, has been held down because of the shortage of paper. A year ago a small increase in paper tonnage was granted, so that for January 1946 it was possible to print 155,000 copies. The press run on the December 1946 issue was 192,000, and it is expected that beginning January 1947 a circulation of 200,000 or better will be maintained, depending on the supply of paper. HYGEIA is greatly in need of additional reading pages. As soon as feasible, it is hoped to increase the number of pages in each issue from the present 80 to 96 or 112 pages.

Most of the increased circulation of HYGEIA has been obtained from select fields, such as physicians, dentists, schools, libraries,

nurses and health teaching groups. During the past year, exhibits have been presented at the annual conventions of the American Medical Association, the National Education Association, the American Nurses Association and the American Public Health Association.

Cooperative Medical Advertising Bureau

The Cooperative Medical Advertising Bureau, established in 1913, was reorganized in December 1945 and had its most successful year (fiscal period December 1945 through November 1946). Net advertising sales exceeded $583,000, representing a gain of approximately $125,000 over the preceding year. Gross sales before agency discounts are estimated at $653,000. New and increased business written during 1946 exceeds $142,000. A good portion of the new business extends into 1947. The actual revenue disbursed to the thirty-five state medical journals that are members of the Cooperative Medical Advertising Bureau exceeded $583,000, from which the Bureau's actual operating expense amounting to approximately $20,000, or less than 5 per cent, was deducted.

Several meetings of the Advisory Committee to the Bureau were held during the year and all matters advocated have been complied with, including establishment of a monthly news bulletin to keep the journals informed of progress made and to provide helpful hints on advertising makeup, current listings of accepted products, notice of meetings and other pertinent facts.

Dr. Julian P. Price of South Carolina was elected as a member of the Advisory Committee to succeed Dr. John S. Bouslog of Colorado, whose term expires in December 1946. Dr. George F. Lull succeeded Dr. Olin West as member ex officio. The Bureau has been enlarged, and innovations and needed changes have been made in Bureau procedures. It is anticipated that the Cooperative Medical Advertising Bureau will continue to increase its value to the journals which it represents, from a remunerative as well as from an informative point of view.

Directory Department

The work of the Directory Department is to maintain a biographic record of the physician with his latest address, from which a directory of physicians can be published. There is also issued in this department, on the first and fifteenth of each month, a supplementary service to the Directory that lists the changes in the medical profession. Since the publication of the 1942 Directory, 34,018 names of new physicians have been added to the files, 113,726 changes of address have been recorded and 15,501 names have been dropped on account of death or for other reasons.

The work of the department has greatly increased because of the return to civilian practice of 55,000 medical officers who have terminated their service with the government. Some 40,000 of these physicians have been located and listed in the supplementary report service, but the other 15,000 have not been heard from or their mail has been returned marked "moved—address unknown."

As it has been more than four years since a Directory has been published, requests by telephone and mail for information about physicians have tripled. Requests for data on applications for membership in county medical societies, American boards of examiners in specialties and membership in special medical societies, along with letters from alumni associations to check addresses, make up a good share of this work. Inquiries are being received from men formerly in military service who are trying to locate physicians who treated them during the war in order to establish disability claims. In addition, a number of physicians are trying to locate other physicians they met while in the armed forces. Before the war three clerks handled requests for such information; now six are required.

The principal reason for the delay in publication of a new American Medical Directory is the shortage of clerical help, but the lack of labor in the printing department and the scarcity of paper also are factors.

Mailing and Order Department

The activities of the Mailing and Order Department have increased considerably during the past months. The rate of increase is about 22 per cent, although the increase in billing alone is almost 100 per cent. This unusual increase in billing orders resulted from a decision made late in 1945 that all orders from physicians on their formal letterheads were to be billed, whereas previously advance remittance was requested. The work of the department has been handicapped considerably by inability to obtain and retain adequate personnel and by the shortage of many book items.

Activities in the stock and shipping room likewise have increased.

The outgoing first and third class mail service has greatly increased in the past year as the result of the addition of new and the expansion of existing departments in the headquarters offices.

Council on Pharmacy and Chemistry

The Council on Pharmacy and Chemistry has continued its basic work of examining the merits of medicinal preparations. This includes editing and publishing the annual volume of New and Nonofficial Remedies and the Annual Reprint of the Reports of the Council, of answering inquiries of physicians and of cooperating with other headquarters offices. At the present time new editions of Useful Drugs, the Epitome of the U. S. P. and N. F. and the A. M. A. Interns' Manual are in preparation; the existing stocks of all these have been practically exhausted.

In addition, the Council has actively pursued the postwar expansion and reorientation of its activities. This is best epitomized in the proceedings of the Council's recent meeting on November 1 and 2. Preceding this meeting the Council held a conference with representatives of the pharmaceutical industry on the subject of the newly revised rules of the Council. The conference was characterized by a remarkable spirit of good will and cooperation sparked by a frank statement of the manufacturers' representatives on points of difficulty in application of the new rules. Full agreement was reached on all essential points, and the resulting modifications will be published in the near future. Incidentally, it may be remarked that the Council's office has been swamped with presentations of products from firms who are now striving to bring their policies into conformance with Council principles as well as from already recognized manufacturers of products which can now be made acceptable under the revised nomenclature rulings.

At the Council meetings which followed the conference with the manufacturers, the agreements reached in the conference were ratified and a further revision, or rather clarification, of the rules was authorized. The Council heard a report from Drs. Reed and Viehoever of the U. S. Department of Commerce on medical and pharmaceutical information obtained from German war records and agreed to receive and consider any further reports the Technical Industrial Intelligence Division might submit. In a discussion of the warnings required by the Food and Drug Administration to be placed by pharmacists on packages of Thiouracil prescribed by a physician, the Council considered the desirability of so amending the Federal Food, Drug and Cosmetic Act as to place solely with the physician the responsibility for issuing any needed warning in the prescribing of toxic products. It was agreed that physicians should be urged to a more lively appreciation of their responsibility in prescription and administration of drugs known to have inherent dangers for the patient. The Council considered the desirability of a report on the present status of the use of blood and blood derivatives and voted to consider, with a view to sponsorship, a report on this subject. The Council heard an informal report by Dr. Milton Veldee on the activities of the National Institute of Health in the consideration and licensure of biologic and other medicinal preparations and proposed the preparation of a statement on this and on the activities of the Food and Drug Administration for the information of the medical profession; the Council further authorized the preparation of a report on the present status of questionable vaccines. The Council considered the possibility of serving as advisory consultant to government departments and/or commercial agencies in the distribution of the products of atomic fission for experimental study or actual medical use. The Secretary was instructed to inquire as to what responsibilities the Council might be required to assume in giving such service. Con-

siderable discussion was devoted to the subject of what medical agents might be safely advertised to the public. It was agreed to make further study of this question on the basis of reports to be prepared and presented on various classes of agents proposed for direct promotion to the public. The Council considered the feasibility of encouraging excellence in the exhibits of pharmaceutical manufacturers at the annual sessions of the Association and voted to ask the Board of Trustees to consider the presentation of suitable awards for exhibits especially noteworthy for scientific, research or informational interest. Further consideration was given to the dangers from the promotion and use of high potency vitamin D preparations in the treatment of arthritis, and a further report on the prescribing of massive doses of vitamin D in this and other conditions was authorized.

Headquarters Staff

The staff is returning to prewar strength and at the present time consists of three medical men besides the Secretary, three laymen who carry on office routine and seventeen women who act as secretaries, stenographers, typists and file clerks and one who undertakes special literature research projects. However, the new and expanded activities of the Council will require further expansion of personnel, especially at the professional and secretarial levels.

The Therapeutic Trials Committee

The Therapeutic Trials Committee was formally organized in April with the appointment of a full time secretary. Requests for clinical investigations of several pharmaceutical products have already been received and acted on by the Committee. Steps have been taken to coordinate the work of the Committee with other agencies interested in research such as the National Research Council and the U. S. Public Health Service.

In order to provide maximum service to investigators and pharmaceutical houses, information on the interests of clinical investigators and on the available facilities for clinical research is being collected. So far nineteen institutions, medical schools and hospitals have been visited by the secretary, 89 deans, professors and other persons interested in clinical research have been interviewed and information concerning the interests of 311 clinical investigators has been obtained.

As an aid to clinical investigators and for the purpose of facilitating the rapid development of knowledge concerning new therapeutic agents and procedures, the possibility of holding conferences of research workers in certain fields in which investigations are proceeding simultaneously in various centers is being explored. Such conferences would be held only if there is a reasonable probability that such a meeting would facilitate the research and provide substantial benefit both to the investigators and to the medical profession.

Steps have been taken to prepare reports for publication dealing with general problems relating to the proper conduct of clinical research. One such report on "The Costs of Clinical Research" is scheduled for early publication.

The Chemical Laboratory

During 1946 the Chemical Laboratory assisted the Council on Pharmacy and Chemistry in the examination and preparation of tests and standards for a number of new drugs, such as demerol hydrochloride, furacin, benadryl hydrochloride, thiouracil, tridione, monocaine formate, monocaine hydrochloride, ethynyl estradiol, sulfathalidine and ceepryn.

Laboratory reports on dosage forms of a wide variety of U. S. P. and N. F. drugs were also prepared in connection with Council consideration. A partial list of such products includes aminophylline, bismuth subsalicylate in oil, delvinal sodium, diethylstilbestrol dipropionate, ephedrine sulfate, mannitol hexanitrate, pentobarbital sodium, sulfadiazine, epinephrine, aluminum hydroxide, diethylstilbestrol, niacinamide, phenobarbital, sulfathiazole, ascorbic acid, calcium levulinate, zephiran chloride and sodium dehydrocholate.

The problem of suitable standards for amino acid preparations has received much attention, and consideration of products such as amigen, protolysate, lactamin and parenamine is progressing.

The Laboratory has also been concerned with standards for natural estrogens from pregnancy urine.

Some new products currently before the Laboratory for examination are diethylstilbestrol dipalmitate, choline dihydrogen citrate, merodicein, aluminum dihydroxy aminoacetate, sodium *p*-amino-hippurate, *p*-amino benzoic acid and dicumarol.

Council on Physical Medicine

Among the problems considered by the Council in 1946, the following are representative:

The Council is prosecuting its survey of methods for artificial respiration which are being used by lay organizations, life-saving crews, the Coast Guard and police and fire departments. Since undertaking these surveys the Council has clarified several controversial aspects of artificial respiration. A research project to investigate in the laboratory various methods of artificial respiration has been supported by funds from the Board of Trustees. This research is being carried on under the direction of Dr. Andrew C. Ivy.

The Council voted to undertake the consideration of thermometry in the practice of medicine. The accuracy, efficiency, calibration and other problems related to clinical thermometers will be studied. The committee has been appointed, and this work is now going forward under the direction of Dr. George Morris Piersol.

Several ultraviolet lamps recommended for disinfecting purposes have been considered. In general, the claims advanced for the efficacy of these products are exaggerated. The Council has found it necessary to withdraw acceptance of one of the disinfecting ultraviolet lamps which had been on the accepted list.

The Council gave consideration to products for the relief of allergic hypersensitiveness. Several mattress and pillow covers were considered and accepted. A new product was placed on the market which was considered and accepted, namely a pillow made of glass fibers. This product competes favorably with pillows made of feather substitutes and, as a matter of fact, it may prove to be a widely used substitute for goose feathers as a filling for pillows.

Radon ointments (Alphatron Radon Ointment) has been marketed to the profession for the treatment of radiation injuries, skin diseases and rheumatism as well as other conditions. A report of rejection has been prepared jointly with the Council on Pharmacy and Chemistry. It is the opinion of the Councils that unwarranted, exaggerated and misleading claims are being made for the ointment. The investigation is being continued.

Ultraviolet irradiation of the blood: Although many therapeutic claims are made for the Knott Hemo-Irradiator, the chief claim is the alleged successful treatment of asthma. In the opinion of the Council, this device is not efficacious and does nothing which cannot be accomplished by simpler means.

In the course of the year the Council voted to adopt a seal which has a format comparable to the seals of the Council on Pharmacy and Chemistry and the Council on Foods and Nutrition.

Consultants on Audiometers and Hearing Aids: The article "Tentative Standard Procedure for Evaluating Percentage of Hearing Loss in Medicolegal Cases" has been released for publication. The revised audiogram chart was adopted and published. Dr. Hallowell Davis of Boston accepted appointment as consultant to replace Dr. Horace Newhart, deceased. Dr. Burt R. Shurly resigned. Six hearing aids were accepted and one was rejected.

Consultants on Contraceptive Devices: The "Minimum Requirements for Acceptability of Contraceptive Devices" were adopted by the Council and sent to manufacturers of contraceptive devices for comment and suggestion. The requirements were referred to The Journal for publication. Three devices have been submitted for consideration.

Consultants on Education: The consultants recommended that an American Board of Physical Medicine and a Section on Physical Medicine of the American Medical Association be established. Dr. George D. Wilson accepted appointment as consultant.

Consultants on Electrocardiographs: "Minimum Requirements for Acceptable Electrocardiographs" were compiled in rough draft and sent to six manufacturers of electrocardiographs for comment and criticism. The requirements are not

complete and are still undergoing revision. One electrocardiograph has been submitted for consideration, but the report is not complete.

Consultants on Occupational Therapy: The "Manual for Occupational Therapy" has been revised and released for publication. It will be ready for distribution Jan. 1, 1947.

Consultants on Ophthalmic Devices: An article entitled "What Is Orthoptics" (first paper) has been published. Consultants have voted to sponsor articles on contact lenses, artificial eyes and orthoptics (second paper). Articles on contact lenses and orthoptics are being considered at the present time.

Consultants on Respirators: Three respirators have been submitted for consideration. They are undergoing investigation at the present time.

Consultants on Roentgen Rays and Radium: A joint meeting of the Consultants on Roentgen Rays and Radium and the Consultants on Atomic Energy with the Council on Industrial Health and the Council on Physical Medicine is called for Dec. 12, 1946. The present status of the therapeutic efficacy of radium, radon and radioactive isotopes will be discussed and an outline of the Council's future activities in these fields will be proposed. On the agenda will be the compilation of requirements for acceptance of radium, radon and radon products.

The lack of raw materials and the labor shortage have restricted the output of physical therapeutic appliances. Appliances are being sold, but in most instances the firms have not been able to supply the demand. For the most part these appliances are made according to the specifications of formally accepted apparatus.

The successful employment of physical medicine during World War II has had a great influence on the acceptance of physical medicine by the general practitioner. As a result, physical medicine has gained in stature.

Council on Foods and Nutrition

The basic work of the Council on Foods and Nutrition has to do with its food acceptance program and nutrition education. In this report are enumerated the services and programs now in effect which were initiated before Jan. 1, 1946, those initiated during 1946 and those authorized or contemplated at the meeting of the Council in November.

The services and programs initiated before Jan. 1, 1946 which are still in effect and being continued are (1) the study of new food products for possible Council acceptance; (2) the review of all food and nutrition advertising copy; (3) the review of general educational advertising; (4) the conduct of the vitamin D milk program, which involves fluid, evaporated and dried milks; this requires the review of assays on each accepted product and the checking of a large number of labels and advertisements for accuracy of statement; (5) the conduct of a program aimed to encourage the production of fruit juices with a high natural level of vitamin C; (6) the iodized salt program; (7) the flour enrichment program; the Council led in the early shaping of public opinion relative to this program; (8) the corn enrichment program; (9) the preparation of Council reports and Council sponsored reports on problems of food and nutrition in health and disease; the Council believes that expansion of this program would be of value; (10) the preparation of replies to letters of inquiry; (11) the conduct of an informal consultation service relative to food and nutrition problems; (12) book reviews and critical reviews of pertinent subjects; the Council office hopes to supply more of these.

The services, programs and studies initiated in 1946 are as follows: 1. All foods bearing the Council seal that were accepted more than two years ago are being restudied and reconsidered. 2. The vitamin D milk program has been brought up to date. 3. The Council's booklets "Rules" and "Decisions" are to be revised. 4. A protein hydrolysate committee was appointed to work with a similar committee from the Council on Pharmacy and Chemistry. 5. A study interrupted by the war of the methods of ice cream manufacture and its role in nutrition is to be continued. 6. The importance of sanitary measures in cheese manufacture is to be studied. 7. Methods of evaluating foods as sources of vitamins and minerals are to be studied. 8. Data on the subject of nutrition teaching methods and objectives in schools of medicine are to be procured. 9. In cooperation with the Bureau of Health Education, the Council is developing a series of radio broadcasts on the subject of foods and nutrition. 10. As part of a program to increase interest in nutrition, the Nutrition Foundation has consented, at the suggestion of the Council, to make *Nutrition Reviews* available gratis to the fourth year students of a selected group of medical schools. 11. Ways and means of increasing the usefulness of the Council to the medical student, the physician and the public are to be studied.

The services and programs authorized or studied at the meeting of the Council on November 21 are (1) a report to the Board of Trustees on the subject of iodized salt, (2) the development of scientific exhibits, (3) revision of the Handbook on Nutrition, (4) the role of beverage bases, (5) the problem of standards for baby foods, (6) a pilot study of the methods and effectiveness of nutrition education in a small group of medical schools, perhaps among the most important of the proposed studies, is to be conducted by Drs. Elvehjem and Youmans and the Secretary of the Council and (7) a cooperative effort with the Pediatric Research Society in the preparation of nutrition teaching aids for pediatrics.

The responsibilities of the Council have increased as the need for new services has become apparent. The present staff is inadequate to accept the challenges being offered at the present time. The Council needs the continued interest and support of the Association in all these projects because they are vitally concerned with nutrition in health and disease.

Council on Industrial Health

Principal developments since the last report of the Council on Industrial Health have been as follows:

Public Relations

World Health Organization.—Information is not yet available regarding the status of industrial hygiene in the proposed World Health Organization. In all likelihood a mixed committee will be appointed consisting of public health experts, representatives of the International Labour Office and of the World Health Organization itself to consider matters of social insurance and industrial hygiene. Meanwhile the United Nations organization is establishing itself in New York and is setting up a health program for its employees, who will likely number about two thousand.

The International Labour Office.—This has reestablished its medical division under the direction of Dr. Marcos Charnes of Chile. The medical activities, which included valuable bibliographic services, were discontinued as a result of the war. Conferences have been held with the director of the safety division of the International Labour Office, which has already been reestablished in Geneva.

Pan American Relations.—On approval of the House of Delegates, conferences with representatives of Canada and of Latin American countries have indicated the great desirability of regular discussion of industrial health developments in these countries, perhaps by establishing an annual or biennial Pan American Industrial Health Congress.

Public Law 658 Enacted by the Seventy-Ninth Congress.—This is an act to provide for health programs for government employees, restricted essentially to preemployment and periodic physical examinations, control over working environment and health counseling. Members of the Council on Industrial Health had previously appeared at hearings in favor of this bill if necessary safeguards were incorporated.

The Division of Industrial Hygiene in the U. S. Public Health Service.—This has been reorganized for improved efficiency of its field activities and states relations and to reestablish research facilities in the division itself. In current appropriations for the U. S. Public Health Service, funds are for the first time specificially earmarked for industrial hygiene services.

American Management Association.—A meeting has been held with the president of the American Management Association. It is expected that a useful working relationship can be developed with this organization, particularly in educational work among industrial firms not large enough for full time medical services.

National Bituminous Coal Mines Wage Agreement.—The Council has been particularly interested in the medical implications of the National Bituminous Coal Mines Wage Agreement. Since the last meeting of the House of Delegates, representatives of the Council on Industrial Health and the Council on Medical Service have participated in conferences at Williamson, W. Va., and in Washington, D. C. Visits of inspection have also been made in the coal mines area with the survey teams assigned by the U. S. Navy. The Council on Industrial Health has been particularly interested in the absence of industrial health services in the soft coal mines and has brought this fact to the attention of the surveying groups on several occasions. The factors of general medical care, including prepayment plans for medical services and hospitalization, have been the particular problem of the Council on Medical Service.

The Coal Mines Wage Agreement strongly suggests that health and welfare will be important factors in all future collective bargaining. It is difficult to predict in what manner and to what degree the conventional methods of industrial medical service will change. The Council on Industrial Health feels that herein lie many opportunities for constructive medical leadership.

Medical Services Operated by Labor Unions.—In consideration of greater labor participation in industrial medical affairs, the Council expects to bring up to date its information about existing medical services operated by labor unions.

Professional Relations and Service

The Seventh Annual Congress on Industrial Health.—This was conducted in Boston Sept. 30-Oct. 2, 1946 with the Massachusetts Medical Society and the Council of the New England State Medical Societies as cosponsors. The meeting was regarded as one of the most successful congresses yet conducted and convinced the Council that future meetings of this kind should be held in various parts of the country instead of exclusively in Chicago as heretofore. These congresses bring important developments in the field of industrial medicine, surgery and hygiene to the attention of the profession at large and demonstrate to physicians the great opportunities for medical service that lie in the industrial health field.

Field Activities.—These have continued, and the Council staff has participated in several regional conferences on industrial health. In these field services the Council strongly upholds the principle that professional standards are a prerogative of physicians in industry, that these standards must be based on scientific and ethical principles and that medical progress in the field must depend on good medical education and medical organization.

Since it is important to acquaint the public as well as industry with the considered point of view of the profession along these lines, a speakers' bureau is being organized with volunteer speakers from all the principal industrial areas.

Professional Education and Placement.—Opportunities for professional training in industrial health are steadily improving in such centers as Wayne University, Yale University, New York University, Columbia University and Long Island College of Medicine. The demand for qualified physicians in industry has held up remarkably well in the early postwar months; in fact, the demand exceeds the available supply. Medical veterans and others who are interested in industrial medicine as a career are using the Council's placement service in substantial numbers. In general, requests received from industry for qualified medical assistants are referred to a county medical society secretary or industrial health committee in the hope that the place can be filled locally. If not, names of applicants on file are supplied.

Status of the Section on Preventive and Industrial Medicine and Public Health.—The status of this section has been a matter of concern to the Council as well as to many practitioners in these fields. The Council therefore recently resolved that the best interests of the medical profession can from this point on be more effectively served by a separate Section on Occupational Health and Medicine and that the proper authorities in the American Medical Association be requested to take this matter under advisement.

Scientific Development

Aluminum Prophylaxis and Therapy in Silicosis.—A joint conference was held on October 31 with the Council on Pharmacy and Chemistry and its Therapeutic Trials Committee regarding the present status of the prevention and treatment of silicosis with aluminum. The position taken was to the effect that use of aluminum for these purposes is still in the experimental stage, that continued competent observation over a long period is necessary to assay treatment adequately and that there should be no curbs placed on continued research and investigation.

Atomic Energy.—The Council is deeply interested in the organization of the Board of Consultants on Atomic Energy under the sponsorship of the Council on Physical Medicine. Since it is proposed to use nuclear energy in industry as a source of power, the question of occupational risk is of considerable importance. A symposium on atomic energy in industry and medicine under the joint auspices of the Council on Physical Medicine and the Council on Industrial Health was an outstanding event of the Seventh Annual Congress on Industrial Health.

Workmen's Compensation

The National Conference Committee on Workmen's Compensation.—This committee has been active during recent months. Those activities affecting medicine particularly have been largely assigned to the Council on Industrial Health for primary investigation and report. These deal with reform in medical testimony, disability evaluation, rehabilitation, elevation of standards of medical care for the industrially disabled and greater participation in workmen's compensation administration by medically trained people with essential qualifications. The Council is represented actively on other subcommittees dealing with the simplification and uniformity of report forms and the adoption of a standard nomenclature and uniform statistical methods. Other subcommittees of the National Conference Committee on Workmen's Compensation are paying particular attention to administrative details such as prompt payment of compensation benefits and reduction in hearings and appeals. Each subcommittee is empowered to seek technical advice and assistance from other interested groups. The Council has taken advantage of this provision and sought help from physicians and others especially equipped to assist in the necessary groundwork. These reports will be presented to the parent organizations of the participants for additional study and, if necessary, ratification.

The work of the National Conference Committee was reviewed at the recent convention of the International Association of Industrial Accident Boards and Commissions. Representatives of the Council attended and participated in a symposium on medical service in workmen's compensation.

Headquarters Staff

Dr. H. R. Hennessy has joined the staff of the Council to maintain close relations with committees on industrial health in the state and county medical societies and with other professional groups in the field having important interests in industrial health.

The Council has obtained the services of Capt. E. W. Brown, recently retired from the Medical Corps of the U. S. Navy, to act as executive officer for the Council's Committee on Scientific Development. He will make regular evaluations of industrial medical education and research, develop a clearing house on industrial hygiene and toxicology, and work closely with the committees on industrial health which have been set up in the sections of the Scientific Assembly.

Bureau of Health Education

The general work of the Bureau of Health Education proceeds with normal evidences of growth. The present personnel of the Bureau consists of a Director, an Associate Director, a Medical Consultant in Health and Physical Fitness, an Educational Consultant in Health and Physical Fitness and secretarial and clerical assistants. The two Consultants in Health and Physical Fitness were added to the staff August 16 and September 16, respectively, as authorized by the Board of Trustees.

CORRESPONDENCE

The general correspondence of the Bureau with cooperating lay organizations, health departments, physicians and medical societies is well in excess of 5,500 units, which will establish a new high for the Bureau. Included with a majority of the replies was literature dealing with a wide variety of physical disorders. This literature is being constantly revised and added to as a means of keeping it abreast of new developments in medicine and surgery. More than a thousand inquiries were referred to the Bureau from health education exhibits in the Cleveland Health Museum, the Newark Health Museum and the Chicago Museum of Science and Industry and as a result of health exhibits at various state or national medical and public health meetings.

LOAN COLLECTIONS

Seventy-six loan collections were sent out by the Bureau. This represents a slight increase over the previous year. It is noted that requests for these loan collections are being received in increasingly larger amounts from lay individuals with special scientific training. Proportionately, requests from physicians are decreasing. It would appear that the latter development has been the result of increased service on the part of state and county medical societies, many of which now have a large amount of this type of information available to physician members.

RADIO BROADCASTING

Radio broadcasting was begun in January 1946 on the NBC network under the title "Doctors at Home" and continued for twenty-six weeks. It proved to be the most successful series thus far broadcast in the twelve years of dramatized broadcasting. In addition, physicians broadcast talks on three nationwide networks and on all radio stations in San Francisco during the annual session.

Negotiations have been begun with other networks with a view to placing programs on them as well as on NBC. Thus far one promising attempt with CBS has failed, but the situation is by no means unfavorable for success along several lines, including CBS.

ELECTRICAL TRANSCRIPTIONS

Electrical transcriptions have continued to form a major part of the Bureau's activity. It is estimated that during 1946 there will be a total of more than 350 series lent, with local broadcasts numbering between 4,000 and 4,500 on approximately 120 outlets, mostly those not reached by network programs.

TELEVISION

On April 2, 1946 the first of a series of television programs was presented by the Bureau of Health Education over Station WBKB, Balaban & Katz, Chicago. A statement heralding this pioneer venture in health education appeared in the March 23 issue of THE JOURNAL. The possibilities cited in that statement have materialized much as was forecast. Acceptable technics have been worked out with the active cooperation of the television station personnel. It has been found possible to integrate dramatization, sections from available motion picture films and discussions by physicians, specialists or otherwise, into acceptable programs that are believed to present health lessons in an extremely forceful manner. It is expected that further refinements in technic will be developed as the Bureau continues this activity as a public service contributed by Station WBKB.

FULL TIME PUBLIC HEALTH UNITS

In accordance with instruction received from the Board of Trustees, the Bureau sent a circular letter to all state medical societies calling their attention to the resolution passed by the House of Delegates some time ago advocating the establishment of county, joint county or district public health units on a full time standardized basis for the entire continental United States.

Replies have been received from Wisconsin, Illinois, Nevada, Michigan, Maryland, Vermont, Missouri, Indiana, New Mexico, Tennessee, New York and Alabama. In most instances these states were already on record with their own resolutions supporting the resolution of the House of Delegates. Only one county in one state gave evidence of active opposition to the idea.

MENTAL HYGIENE WORK BY STATE MEDICAL SOCIETIES

As instructed by the Board of Trustees, the Bureau sent a circular letter to state medical societies calling their attention to the resolution about the importance of mental hygiene work by state medical societies.

Replies have been received from Hawaii, Kansas, Texas, Washington, Florida, Colorado, Wyoming, Minnesota, New York, Tennessee, North Dakota, Michigan, Nebraska, Nevada, Wisconsin, Kentucky, Alabama, Connecticut, the District of Columbia and Indiana. In most instances the information contained in these letters indicated that the state medical society already had a committee on mental hygiene. Some of these committees have been functioning actively for many years.

HEALTH AND PHYSICAL FITNESS PROGRAM

A source file is being prepared which already includes materials on school health and physical education from thirty-eight states and many professional and nonprofessional organizations.

The consultants have reviewed material and made suggestions for two state groups concerned with curriculum planning in health and physical education.

An outline has been prepared for the revision of "Health Inspection of School Children," which will be submitted to the Joint Committee on Health Problems in Education of the American Medical Association and the National Education Association for approval and subsequent development for publication.

A report of the National Committee of the National Conference for Cooperation in Health Education, "The Functions and Education of Health Personnel in Relation to the School Health Program," has been reviewed by the consultants previous to its publication.

The consultants, with the approval of the Board of Trustees, have accepted invitations to membership on the National Committee on Standards for Interscholastic Athletics of the American Association for Health and Physical Education and the National Committee on Standards and Surveys on Health Education of the American Association of Teachers' Colleges.

A series of thirteen radio transcriptions on physical fitness have been prepared for use by county medical societies or by other groups having the approval of the medical societies, in the promotion of physical fitness.

A television program on physical fitness was broadcast over station WKBK November 7, and a second is contemplated for late December.

The consultants have served as participants or have given talks at health conferences or other group meetings in Arizona, Illinois and Wisconsin and have other assignments of this type scheduled. Articles on health and physical fitness have been submitted to professional journals on health, physical education and recreation. Each of the consultants has been invited to prepare and is working on one chapter of the revision of "Health Education," published by the Joint Committee on Health Problems in Education. A considerable amount of correspondence addressed to the American Medical Association on health and physical education topics has been referred to and answered by the consultants. The consultants prepare each month a series of "Suggested Discussion Topics" for the classroom use of HYGEIA, the Health Magazine, in secondary schools.

PAMPHLETS

Reacting to the justified criticisms of the Bureau's pamphlet publications contained in the Rich Report, an experimental project has been started in the Bureau to make evaluations of the pamphlets. Evaluation by a lay reader is more significant than by a doctor, since it is for lay readers that these pamphlets are intended. A recommendation has been made to the Board of Trustees that the pamphlet publications of the Bureau be improved, as recommended by the Rich Report, through the appointment of a pamphlet editor whose full time and sole duty it shall be to evaluate pamphlets, make layouts, procure art work and keep the reprint stock constantly fresh and vital.

Cooperative Relationships

The Director, Associate Director and Health Consultants represent the American Medical Association on a number of committees, of which the most active ones are:

Health Education Committee of the American Cancer Society.
National Congress of Parents and Teachers.
American Public Health Association (several committees).
National Committee for Boys and Girls Club Work (4-H Clubs).
U. S. Children's Bureau, Advisory Committee on Maternal and Child Health.
Cook County Health Survey.
National Committee on Standards for Interscholastic Athletics of the American Association for Health and Physical Education.
National Committee on Standards and Surveys on Health Education of the American Association of Teachers' Colleges.

Bureau of Legal Medicine and Legislation

Since the last report of the Bureau was submitted, the 79th Congress has adjourned sine die. All legislation then pending died. The 80th Congress will convene in regular session early in January and it can reasonably be anticipated that much of the legislation pertaining to the field of medicine which failed of enactment in the last Congress will be reintroduced.

As a result of the November elections there will be a change in the chairmanships of Congressional committees generally, and those committees to which proposals relating to medical care are customarily referred will therefore be under new leadership. It is reported that Senator Taft of Ohio will head the Senate Committee on Labor and Public Welfare, as the former Committee on Education and Labor will be designated under the reorganization act. To this committee will probably be referred any new version of the Wagner-Murray-Dingell bill unless provision is made in it for the imposition of taxes, in which case the new version will go to the Senate Committee on Finance. Senator Butler of Nebraska has been mentioned as the new chairman of that committee, succeeding Senator George.

In the new setup of the House of Representatives, Congressman Knutson of Minnesota has been mentioned as the new chairman of the House Committee on Ways and Means, Congressman Cole of New York as the new chairman of the Committee on Education and Labor, and Congressman Wolverton of New Jersey as the chairman of the Committee on Interstate and Foreign Commerce, the three House committees to which are normally referred major legislation proposing health programs.

With the change in the political flavor of the Congress, it would seem reasonable to anticipate even more sober deliberation in connection with any proposals that may be advanced to revolutionize medicine.

The Hospital Survey and Construction Act.—The President approved this far reaching law on August 13. While it authorizes an appropriation of $3,000,000 for state conducted surveys and $75,000,000 annually for five years for construction purposes, the 79th Congress actually appropriated only $2,350,000, earmarked for assistance to states in surveying and planning and for the administrative expenses of the Public Health Service in connection with the program.

Preliminary procedures have been developed to carry out the provisions of the new law. On a federal level there has been created in the Bureau of States, United States Public Health Service, a Division of Hospital Facilities which will be responsible for carrying out the functions which the Public Health Service is authorized under the law to perform. A Federal Hospital Council has been appointed. An Advisory Committee has been formed the members of which will act as consultants to the Council and to the Surgeon General of the Public Health Service.

On a state level, twenty-nine states have enacted legislation designating a single state agency to function in connection with the program. In the majority of these states the state health department was the agency designated.

Growing out of this federal law is a movement to promote the enactment of uniform state hospital licensure laws. The Hill-Burton law does not require a participating state to enact a hospital licensing law. It does require the enactment by July 1, 1948 of legislation providing that compliance with minimum state standards of maintenance and operation shall be required in the case of hospitals which receive federal aid under the law. It is apparently felt that this requirement can be more readily complied with by the enactment of a state licensing law in which provision is made for adequate standards and through the mechanics of which such standards can be successfully enforced. A draft of a proposed state hospital licensing law is being formulated under the sponsorship of the Council of State Governments. The Association was asked to participate in perfecting this draft and that invitation was accepted.

Enlarged Federal Cancer Program.—The 79th Congress made available to the Public Health Service an increased appropriation to assist states, counties, health districts and other political subdivisions of the states in establishing and maintaining adequate public health services. Of this increase the sum of $2,500,000 has been earmarked by the service for grants-in-aid to the states for a cancer program. This program, apparently, will be similar to the existing programs for venereal disease control and for tuberculosis control.

Maternal and Child Welfare.—While Congressional action was not completed on the Pepper maternal and child welfare bill, additional funds were made available by the 79th Congress for grants to states for maternal and child health services—the authorization being increased from $5,820,000 to $11,000,000, for services for crippled children—the authorization being increased from $3,870,000 to $7,500,000, and for child welfare services—the authorization being increased from $1,510,000 to $3,500,000.

National Mental Health Act.—On July 3 the President approved the National Mental Health Act to provide, through the United States Public Health Service, for research relating to psychiatric disorders and to aid in the development of more effective methods of prevention, diagnosis and treatment of such disorders. This law authorizes an annual appropriation of $10,000,000 to carry out its purposes through grants-in-aid and otherwise. It also authorizes an appropriation of $7,500,000 for the erection and equipment of hospital and laboratory buildings and facilities in or near the District of Columbia, to be known as the National Institute of Health. While these authorizations are included in the enacted law, actually no sums were appropriated by the 79th Congress, and the activation of the program must therefore await further Congressional action.

The President's Reorganization Plan No. 2.—This plan became effective July 16 after the Senate had rejected a House concurrent resolution proposing that the Congress disapprove it. By it the Children's Bureau, the Division of Vital Statistics and the activities of the United States Employees' Compensation Commission were transferred to the Federal Security Agency. There the Children's Bureau was placed in an operating branch designated as the Social Security Administration, headed by Arthur J. Altmeyer. The Division of Vital Statistics was placed in an operating branch designated as Public Health, headed by Surgeon General Thomas Parran of the United States Public Health Service. The activities of the former United States Employees' Compensation Commission which was abolished by the plan were assigned to an operating branch designated as Office of Special Services to be carried on by a newly created Bureau of Employees' Compensation and an Employees' Compensation Appeals Board, this operating branch to be headed by Mrs. Jewell W. Swofford, former chairman of the United States Employees' Compensation Commission.

Other Federal Laws Enacted.—During the closing days of its 79th session, the Congress completed action on the following additional measures of interest to medicine: (1) a bill to provide for health programs for government employees; (2) a bill to authorize the Veterans Administration to employ, without affecting their retired status, retired medical officers to act as superintendents and directors of medical services in veterans' hospitals; (3) a bill to make permanent the act of July 11, 1941 prohibiting prostitution in the vicinity of military and naval establishments; (4) the Crosser bill to amend the Railroad Retirement Acts and the Railroad Unemployment Insurance Act providing, among other things, cash sickness and maternity benefits for railroad employees and (5) a bill to provide assistance to the states in the establishment, maintenance, operation and expansion of school lunch programs.

State Legislation.—A summary survey of state laws of medical interest enacted during 1946 was completed by Mr. George E. Hall, a Bureau staff member, and published in THE JOURNAL of August 31. Similar surveys will be made in the future and published in THE JOURNAL so that trends in medical legislation may be followed and so that each state medical association will be advised as to the types of medical laws enacted in each other state.

Taxes.—Conferences have been held with the technical staff of the Joint Committee on Internal Revenue Taxation with respect to two specific matters: (1) the elimination of the requirement that the tax imposed on physicians by the Harrison Narcotic Act be paid by a certified check if it is paid by check and (2) a proposal that members of professional groups which under state law cannot engage in corporate practice be permitted to take advantage of the lower corporate tax rates. These matters will be given continued consideration.

Miscellaneous.—The Director of the Bureau participated in a Seminar in Legal Medicine, held under the auspices of the Department of Legal Medicine, Harvard Medical School, October 21 to 26, and has accepted such speaking engagements as the pressure of other demands has permitted. Much time has been devoted to the preparation of a history of the Bureau for incorporation in the history of the American Medical Association being written in connection with the centennial celebration to be held in 1947.

Bureau of Medical Economic Research

At its September 1946 meeting the Board of Trustees changed the name of this Bureau, established in 1931, from the Bureau of Medical Economics to the Bureau of Medical Economic Research. The Board also announced the appointment of Frank G. Dickinson, Ph.D., as the new Director of the Bureau, succeeding Dr. R. G. Leland. The Board also stated that the Bureau would be reactivated and expanded and that research would be stressed.

Dr. Dickinson resigned his position as associate professor of economics at the University of Illinois, where he had taught economics since graduation in 1921 except for the school year in 1922-1923, when he was instructor in economics at the Pennsylvania State College. He also received his A.M. degree at the end of that year. He received his Ph.D. degree at the University of Illinois in 1927. His principal fields of study and teaching were insurance and statistics. He had served as president of the American Association of University Teachers of Insurance during 1944 and 1945.

In reactivating the Bureau it has been necessary to add to the economic books, pamphlets and bulletins needed for research. Building a library requires a good deal of time. The new director has studied the previous publications of the Bureau and desires to report that he regards them as extremely fine studies. Every week a number of these are mailed in answer to the numerous and varied queries received. He has worked in close cooperation with the Council on Medical Service, attending its meetings and being a member of its Subcommittee on Cooperation with Insurance Industry in the Development of Prepayment Medical Care Plans and of its Committee on Rural Problems on Medical Care Insurance. The Director addressed the Association of Medical Care Plans at its first annual meeting in October and attended the meeting of its Commissioners in Omaha, November 14 and 15. It is hoped that this organization and the Director of the Bureau working with the Council on Medical Service will be able to develop comprehensive actuarial data on the operations and possible expansion of the different medical care plans in the various states. It will probably be necessary to employ an actuary in the Bureau to perform this function efficiently. An actuary is also needed to help with some of the research program planned by the Bureau.

The staff operating the I. B. M. equipment at Association headquarters was transferred to the Bureau in September, and the Director has devoted a considerable portion of his time to reorganizing this group. He found that the punch card inventory was not adequate and that some pieces of equipment were lacking. The Bureau has been called on to furnish information for several agencies, including the Coal Mines Administration in Washington. This information could not have been furnished without the I. B. M. equipment. It should be stressed that for the most part the Bureau in this capacity acts as a service agency for the Councils at American Medical Association Headquarters, especially the Council on Medical Service and the Council on Medical Education and Hospitals, and for local and state medical societies. Routine work connected therewith has taken a good deal of the Director's time.

So far as staff is concerned the only major change is the addition of Mrs. Laurie Wallach as research assistant. The Board of Trustees has authorized the Director to employ a young Ph.D. in Economics and Statistics and an M.D. with an interest in the field of medical economics. The Director has not yet found any one for either one of these positions.

Research work, almost completed by Dr. Leland, for the preparation of a life table for physicians which will be presented at Atlantic City by the Statistical Bureau of the Metropolitan Life Insurance Company has been continued. A later study of deaths among physicians during the war period has been started and it is hoped that a fairly comprehensive picture of mortality among physicians during the whole war period can be presented. This study will not be completed before 1948.

The Director has observed that the studies made here and elsewhere on the supply of medical service use county data; that is, the population of a county is divided by the number of physicians in that county, and this ratio is called the physician-population ratio. Economic data do not follow county boundary lines, although the county may be an excellent unit for organizing a professional society. A physician is not a county coroner, and his patients often reside outside the county. The accessibility of medical service has undergone many changes in the last generation, and a study of the supply of medical service must recognize the changes wrought by hard roads and other improvements in transportation. Hence the Bureau is attempting to develop medical service areas which cut across county boundary lines and circumscribe the area served by the physicians in the community. These physician-population ratios for medical service areas, when completed, will indicate the actual supply of medical service to the people in all sections of the United States. It is estimated that it will require at least two years to mark out the entire map of the United States into medical service areas as has been done for retail trading areas by several research organizations. A questionnaire has been sent to the county medical societies which asks the respective secretaries to draw on a state highway map a line around the area served by the physicians located in the medical center of the county. The Bureau hopes that the answers to this questionnaire by the county societies' secretaries will be helpful in preparing the medical service areas of each state.

The Bureau does not yet have the staff necessary to revise all the bulletins published heretofore by the Bureau, but letters have been received from the deans of most of the colleges of medicine regarding revisions of bulletins used in the teaching of courses in medical economics. It is hoped to complete these revisions during 1947.

The Director was asked by the General Manager to assist the Committee on National Emergency Medical Service in the preparation and mailing of a postwar questionnaire to 50,000 discharged medical officers and to code, tabulate and analyze the returned questionnaires. This work has taken most of the Bureau's time during November and December. The response to the questionnaire is remarkably good. Probably 20,000 or more questionnaires will be studied by the Bureau and the report filed with the Committee in April.

The only writing which the Director has found time to complete is the first article in the January issue of HYGEIA. The article represents the general philosophy of the new Director of the Bureau regarding the "Quest for Health." It is the opportunity to study this quest for health which induced him to follow the suggestion of his family physician, Dr. Glen R. Ingram of Champaign, Ill., late in July that he consider the position of Director. Without the suggestion and urging of Dr. Ingram the Director would never have known of the magnificent opportunity which the position of Director of Medical Economic Research has opened up to him in the four months he has been at American Medical Association headquarters.

Bureau of Exhibits

The first postwar year saw the resumption of normal activities in the Bureau of Exhibits, with expansion of the work in several lines. The personnel of the Bureau which had consisted of three persons for many years, was increased to seven, and additional space on the fourth floor of the headquarters building was obtained.

The activities of the Bureau fall into several divisions, as follows: The Scientific Exhibit at the annual session of the Association; Association exhibits, which include medical exhibits for medical meetings and other scientific groups, as well as health exhibits for fairs and expositions; motion pictures. Each of these subjects is discussed separately in this report.

The Scientific Exhibit

The Scientific Exhibit at the San Francisco session was held in the Civic Auditorium, occupying several small halls and corridors on the first and second floors. The exhibits dramatized the advances made in medicine during the war years, constituting an intensified course in graduate medical instruction.

Section Exhibits.—Active cooperation was maintained with the seventeen sections of the Scientific Assembly, each of which appointed representatives to the Scientific Exhibit.

The section representatives rendered valuable assistance to the Committee on Scientific Exhibit in securing exhibits of exceptionally high caliber and in giving freely of their time and energy throughout the year.

United States Army.—It was the desire of Surg. Gen. Norman T. Kirk, United States Army, to portray at the San Francisco session advances that medicine had made during World War II. The Army built the exhibit entirely new for the meeting. Other activities of the Army included participation in the Special Exhibit on Physical Medicine and maintenance of two motion picture theaters in the Veterans Building. The Committee on Awards issued a citation of Merit to the United States Army for these contributions.

United States Navy.—The United States Navy presented a spectacular group of exhibits and, in addition, the Navy participated in the Special Exhibit on Physical Medicine and showed a group of motion pictures in the Veterans Building. The Committee on Awards issued a Citation of Merit to the United States Navy for these contributions.

Special Exhibit on Fractures.—This feature of the meeting was presented for the fifteenth time over a period of twenty years. Except for the first two years, Dr. Kellogg Speed, Chicago, has been chairman continuously, and it is due to his initiative and energy that interest has been maintained. Continuous demonstrations were conducted in six booths to audiences that strained the facilities of the area to accommodate them. A pamphlet was prepared for distribution.

Special Exhibit on Physical Medicine.—This exhibit was shown for the first time at the San Francisco session and was under the guidance of Dr. Frank H. Krusen, Rochester, Minn., chairman. The exhibit included physical therapy, occupational therapy and rehabilitation, occupying twelve booths. Motion pictures were shown continuously in a room adjoining the exhibits. A pamphlet was prepared for distribution by the Committee, while numerous pamphlets from other sources dealing with various phases of physical medicine were likewise distributed.

Motion Pictures.—Motion pictures in the Scientific Exhibit were not shown in exhibitors' booths because of the problem created in congestion of the aisles; therefore special theaters were arranged where the audiences could be seated in comfort. There were six motion picture theaters, one in the Civic Auditorium and the other five in the Veterans Building, three blocks distant. Authors were encouraged to comment on their films as they were shown or to make remarks immediately before or after the showing.

Committee on Awards.—The Committee on Awards consisted of Dr. O. P. J. Falk, St. Louis, chairman; Dr. H. J. Corper, Denver; Dr. Leo F. Rigler, Minneapolis; Dr. Curtice Rosser, Dallas, Texas, and Dr. J. Ross Veal, Washington, D. C. All the members worked conscientiously and diligently over a period of three days, including two night sessions, and returned a report that received much commendation.

Twenty-three awards were presented: six medals, six certificates of merit, eight honorable mentions, two citations of merit and one special commendation. In addition, the Committee extended itself beyond its regular sphere of activity and awarded a gold medal to the Director of the Scientific Exhibit. The complete report of the Committee on Awards, giving the names of the recipients of the awards and the titles of their exhibits, was published in The Journal, July 20, 1946, page 1008.

Recommendations.—The Committee on Awards recommended that a new medal be prepared for the Scientific Exhibit. It was felt that the present medal, which portrays the features of Dr. Frank Billings, is not symbolic of the spirit of the Scientific Exhibit. The Committee on Scientific Exhibit confirmed the recommendation of the new medal, and drawings are now being prepared.

Members of the Advisory Committee of the Scientific Exhibit recommended that a public Exposition be held in Atlantic City at the time of the annual session to promote public relations and health education. The Committee on Scientific Exhibit voted to investigate the feasibility of the matter.

Numerous suggestions have been received concerning methods by which a permanent record could be made of the exhibits shown at each annual session. The Committee on Scientific Exhibit voted that photographs be taken showing the detail of outstanding exhibits at the Atlantic City session. Copies will be sold to interested physicians.

At various times there have been requests for a pamphlet containing instructions for the preparation of exhibits. The Committee on Scientific Exhibit favored a pamphlet that would give basic information, and this will be prepared.

Comments and Remarks.—Numerous encomiums were received at San Francisco concerning the value of the Scientific Exhibit as a factor in graduate medical instruction. The credit, of course, goes to the exhibitors who gave so freely of their time and effort, with no thought of reward. The demonstration of an exhibit for a week at the annual session is almost a superhuman task, straining to the limit the energies of persons who undertake it. The Association is in deep gratitude to such persons.

Centennial Celebration.—Plans for the Centennial Celebration at Atlantic City in 1947 have been given much time and study. Close contact has been maintained with the Council on Scientific Assembly and with the sections, each of which has appointed a representative to the Scientific Exhibit. Arrangements have been made for four special exhibits, together with a considerable amount of historical material.

Association Exhibits

The Association Exhibits depict the work of the various Councils and Bureaus of the Association Headquarters on subjects in which those departments are interested. About forty exhibits are maintained for loan purposes, part of which go to medical meetings and other scientific groups, while the remainder are intended for fairs and expositions. During the year several old exhibits were discarded because they were no longer serviceable; others are in the process of repair and rebuilding. Lack of personnel in many of the departments has retarded the building of contemplated exhibits, while the difficulty of obtaining materials has still further delayed the program.

Difficulties in transportation and housing during the abnormal times following the war have interfered with participation in many meetings. A considerable number of requests for exhibits were canceled because of these reasons. During the first eleven months of the year, however, one hundred exhibits were sent to fifty-three meetings in twenty-five states and the District of Columbia. There were twenty-four medical and scientific meetings which used thirty-eight exhibits, each accompanied by a member from the headquarters staff. The Director of the Bureau of Exhibits attended many of the meetings personally.

Fairs and expositions which were canceled during the war opened again in 1946 to a considerable extent. Sixty-two exhibits were lent to twenty-nine local groups in many different states. The opportunity for contact with the public through health exhibits in promoting better public relations is excellent.

MUSEUMS

Health exhibits have been maintained in the Chicago Museum of Science and Industry and the Cleveland Health Museum. A large group of exhibits was lent to the Dallas Health Museum, which opened in October, and cooperation has been extended to the proposed San Diego Health Museum, which is expected to open in the near future. Other museums using the facilities of the American Medical Association include the Newark Museum at Newark, N. J., and the Cayuga Museum of History and Art at Auburn, N. Y.

A question and answer service has been a feature at several of the museums, with the questions answered by mail from the Bureau of Health Education. The questions have become so numerous, however, that the service has been temporarily curtailed.

COMMITTEE ON MEDICAL MOTION PICTURES

In 1945 the Board of Trustees, at the instigation of the Committee on Scientific Exhibit, appointed a Committee on Medical Motion Pictures to make suggestions and report back to the Board. At the San Francisco session the Trustees accepted the recommendations and appointed the following committee:

Dr. W. L. Benedict, Mayo Clinic, Rochester, Minn., Chairman, 1947.
Mr. John G. Bradley, Director, Motion Picture Section, Library of Congress, Washington, D. C., 1947.
Dr. Dean F. Smiley, Bureau of Health Education, A. M. A., 1948.
Mr. Ralph P. Creer, Bureau of Exhibits, A. M. A., Secretary, 1948.
Dr. Morris Fishbein, Editor, THE JOURNAL, 1949.
Mr. Thomas S. Jones, University of Illinois College of Medicine, Chicago, 1949.

The Committee has acquired a projection room for reviewing films adjacent to its office on the fourth floor in the headquarters building. Reviews of medical motion pictures have been published in THE JOURNAL and the source file of films has been expanded.

The film library, formerly located in a professional studio, has been brought to the headquarters building, making possible a more efficient handling of films. This library is still small, but additions will be made from time to time of films that are of a basic nature. The demand for films from medical schools, medical societies, hospitals and other organizations continues to increase.

A questionnaire has been sent to all medical schools in the United States and medical societies to obtain information concerning their facilities for showing films and concerning the subjects of films that would be most useful in medical schools and medical societies. The response to date is gratifying.

The Secretary of the Committee has kept in close touch with other groups interested in medical films and has attended many committee meetings of those groups.

MISCELLANEOUS ACTIVITIES

Numerous conferences have been held on matters pertaining to graduate medical instruction and health education by visual means. Visitors have come from all parts of the United States as well as from the Latin-American countries and other parts of the world. Members of the staff have collaborated with other agencies, serving on various boards and committees.

The publications sponsored by the Bureau have continued to be popular. Various mimeographed outlines prepared for distribution with exhibits have had a wide circulation.

Bureau of Investigation

The number of inquiries recently received in the Bureau of Investigation about "patent" medicines and numerous other forms of quackery shows a substantial increase, and particularly the requests for such information which have come from college and high school students. Much assistance is being given to students and others who are doing research work in quackery, and exhibit material is being supplied to teachers and health organizations.

Considerable correspondence has been carried on recently with the Post Office Department, the Food and Drug Administration, the Federal Trade Commission, the National Better Business Bureau and its various branch offices, state licensing boards and other organizations regarding individuals and concerns which they and the Bureau are jointly investigating.

The Bureau has obtained specimens of two new and widely promoted "hair growers," which the Chemical Laboratory is testing, so that the facts on them may be published in THE JOURNAL. Reports on other types of quackery also are being prepared for publication.

In August the Acting Director of the Bureau took part in a television broadcast on "Medical Fakes."

The Bureau is preparing an exhibit for the Association's centennial celebration in 1947.

Bureau of Information

The Bureau of Information, through its service to the returning medical officer, is making a concentrated effort to guide physicians to locate in areas where their services are most needed. Through the cooperation of the state medical societies, current listings are available for openings in general practice, specialties and associate positions throughout the country. Physicians requesting information regarding a specific area in a state are supplied with summary sheets covering the medical and economic features of the area together with a listing of the communities in that state where there is definite need for a physician.

Realizing that rural areas generally are not as well supplied with physicians as urban areas, the Bureau has been working closely with the Council on Medical Service and the Committee on Rural Medical Service of the American Medical Association in developing programs to arouse rural people to an appreciation of the benefits of modern medical science and to stimulate and coordinate the work of the various groups working for better rural medical service.

In cooperation with the Bureau of Health Education and the Council on Medical Education and Hospitals, the Bureau of Information gave a television program on rural health problems and the extension to needy areas of more adequate medical care through a better distribution of physicians.

The Bureau is working out a cooperative program with the Division of Hospital Facilities of the U. S. Public Health Service. It is hoped that through a coordinated system of rural, city and town hospitals medical service in farm communities will be improved. The Hill-Burton law, supporting the survey and construction of hospital, health and diagnostic centers throughout the nation, is one measure aimed at implementing this program in areas where the facilities are unavailable and cannot be supplied through local or state agencies. In order to attract physicians into areas where needed, there must be reasonable assurance not only of economic security and satisfactory medical facilities but also of an opportunity to conduct the highest type of medical practice.

The Bureau of Information is conducting a survey through local medical societies to determine the conditions and distribution of medical care in the rural areas of the country and the recent movements of physicians into rural areas. In developing this survey the Bureau has sent a questionnaire to the state medical societies requesting specific information regarding the medical personnel, facilities and needs of every county in the United States. The analysis and results of this survey will be published in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

The Bureau is assisting the Committee on Rural Medical Service in arranging the second annual National Conference on Rural Health, to be held on Feb. 7 and 8, 1947, in Chicago. The meeting will give the farmer and the doctor an opportunity to exchange views regarding many questions which are of vital importance in developing a better health service in rural communities throughout the United States.

Respectfully submitted,

R. L. SENSENICH, Chairman.
ERNEST E. IRONS, Secretary.
DWIGHT H. MURRAY.
WILLIAM F. BRAASCH.
LOUIS H. BAUER.
E. L. HENDERSON.
JOHN H. FITZGIBBON.
JAMES R. MILLER.
C. W. ROBERTS.

Supplementary Report of Board of Trustees

Dr. R. L. Sensenich, Chairman, presented the following supplementary report, which was referred to the Reference Committee on Reports of Board of Trustees and Secretary:

REPORT OF DR. IVY

The Department of State of the federal government several months ago requested the American Medical Association to suggest the name of an outstanding medical investigator to represent the United States on an interallied commission to study the medical experiments on human beings carried on by the Nazi government during the war. The Board of Trustees selected Dr. A. C. Ivy of Chicago as the representative. Dr. Ivy went to Europe and on his return submitted a report to the government and a copy to the Board of Trustees. The Board referred the report to the Judicial Council, and it is expected that that Council will report to the House of Delegates its conclusions and recommendations.

MATTERS REFERRED BY HOUSE OF DELEGATES

A number of resolutions and suggestions were referred to the Board of Trustees at the last annual session. In addition, several important items have arisen concerning which the House should be informed.

Resolutions on Inclusion in The Journal of Important Medical Activities in Puerto Rico: Dr. Charles H. Phifer, Illinois, introduced for Dr. Manuel de la Pila, Puerto Rico, under unanimous consent, the following resolutions, which were referred to the Board of Trustees:

WHEREAS, The Medical Association of Puerto Rico is composed of several hundred physicians, of whom the great majority are American citizens and graduates of class A medical schools of the continental United States; and

WHEREAS, This association is affiliated with the American Medical Association and its organization activities and standards correspond to those of the state medical associations of the continental United States; therefore be it

Resolved, That the news and notices of important medical activities in Puerto Rico be included in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION in the section of domestic information devoted to the publication of news from the different states and not in the section of news from foreign countries; and be it further

Resolved, That these news items and notices be sent to THE JOURNAL directly by or with the approval of the officers of the Medical Association of Puerto Rico.

The unintentional error has been corrected.

Letter from Senator James E. Murray: The Board of Trustees presented a letter from Senator James E. Murray to the House of Delegates at its last annual session. This letter was referred to the Reference Committee on Legislation and Public Relations, which in turn referred it to the Board of Trustees for further investigation and decision as to a reply. The Board has given careful consideration to this communication and is of the opinion that no reply is necessary on account of the change in conditions since the receipt of the letter.

Resolutions on Establishment of Council on History of Medicine: The resolutions regarding the establishment of a Council on History of Medicine, which were referred by the House at the San Francisco session, on recommendation of the Reference Committee on Miscellaneous Business, to the Board of Trustees has been considered and has been discussed with the Council on Scientific Assembly. It was decided to devote one session in the Section on Miscellaneous Topics to the history of medicine at the 1947 annual session.

Resolutions on S. 2143: The Board of Trustees has already had one conference with Senator Taft relative to this bill, and another conference will be held after Jan. 1, 1947. At that conference certain other interested senators will also be consulted.

Review of Fidelity Insurance Schedule: The Board has reviewed the fidelity insurance carried against certain officers and employees, as recommended by the Reference Committee on Reports of Officers at the 1946 annual session, and feels that the present arrangements are satisfactory. For that reason the Board does not think it necessary to make any changes.

Resolutions on Rank of Surgeon General: A committee consisting of Dr. B. R. Kirklin, Chairman, Dr. Hugh P. Smith, Dr. Grover C. Penberthy, Dr. Elmer Hess and Dr. Charles J. Kickham was appointed by the Speaker of the House of Delegates in accordance with the terms of the resolutions adopted by the House at San Francisco on recommendation of the Reference Committee on Miscellaneous Business. The Board of Trustees has made funds available for expenses incurred in connection with this committee's activities.

Bureau of Medical Economic Research: The name of this Bureau has been changed from Bureau of Medical Economics to Bureau of Medical Economic Research. Dr. Frank G. Dickinson, formerly associate professor of economics at the University of Illinois, has been engaged as Director of the Bureau and as economist for the Association.

Financial Report: No report of financial affairs is included in this report. A detailed report is made to the House of Delegates at each annual session.

RESOLUTION ON HEALTH LEGISLATION BENEFICIAL TO THE PEOPLE

At the meeting of the House of Delegate of the American Medical Association in Chicago, Dec. 3, 1945, a resolution was introduced by Dr. Herbert H. Bauckus, delegate from New York, with the title "Health Legislation Beneficial to the People." This resolution proposed that the following principles for a health legislation program be adopted:

1. Establishment in the President's cabinet of a secretary of public health and medical welfare.
2. Encouragement of medical and other scientific research by government grants-in-aid.
3. Federal or state loans or guaranties of private loans for the expansion of hospital and educational facilities.
4. (*a*) Establishment of statewide voluntary nonprofit health care programs.
   (*b*) Federal expansion of medical service within such programs.
   (*c*) Cooperation with the Veterans Administration.
   (*d*) Control of such medical services under state enabling acts.
   (*e*) Cooperation and reciprocity between state medical and hospital care programs.
5. Public information and educational services on health.
6. The principle that the functions of government—federal and state—agencies should be to encourage and assist rather than compete with voluntary health insurance plans.

Further, it was resolved that every state medical society be invited to study, adopt and activate these principles on a state level and that they be submitted to the Council on Medical Service and Public Relations of the American Medical Association for immediate consideration as a pattern for a national health program.

These resolutions were referred to the Reference Committee on Legislation and Public Relations, which at that session presented an extensive analysis of the recommendations of President Truman regarding legislation, the constructive program adopted by the American Medical Association and several other resolutions dealing with medical care, and recommended that the House of Delegates of the American Medical Association instruct the Board of Trustees and the Council on Medical Service and Public Relations to proceed as promptly as possible with the development of a specific national health program, with emphasis on nationwide organization of locally administered prepayment medical care plans sponsored by medical societies.

At the 1946 session of the House of Delegates held in San Francisco, a resolution was introduced by Dr. John W. Green of California referring to a resolution which came from the Conference of Presidents and Other Officers of State Medical Associations, which in turn seems to have referred to the resolution introduced by Dr. Herbert H. Bauckus of New York. The resolution introduced by Dr. Green called attention to the fact that the House of Delegates in 1945 had approved a resolution on and adopted principles for a program of health legislation beneficial to the people and that it had referred the resolution to the Board of Trustees of the American Medical Association for further study and appropriate action and asserted furthermore that "no further action has apparently been taken to date." The resolution by Dr. John W. Green resolved that the House of Delegates of the American Medical Association be requested to make its instructions to the Board of Trustees for prompt action specific beyond possibility of misinterpretation. This resolution was referred to the Reference Committee on Legislation and Public Relations, which reported: "Your reference committee is of the opinion that the failure of the

Board of Trustees to take action on the resolution passed in December 1945 referred to was due primarily to the large amount of work presented to the Board of Trustees." It said, furthermore, "Following reorganization voted on Tuesday, we are of the opinion that this subject along with many others will be promptly considered by the proper authorities." At the same session of the House of Delegates Dr. Herbert H. Bauckus introduced a resolution in which he pointed out that the American Medical Association had adopted a ten point progressive program for medical care, that the American Medical Association had taken positive action in placing this program in effect by presenting it before Congress and by implementing its voluntary insurance program in various ways; that the general public is not as aware as it should be of the positive actions of the American Medical Association with reference to hospital construction, diagnostic facilities, infant and maternal welfare, voluntary insurance and health education, and resolved that the American Medical Association be requested to extend its publicity so that the general public will be more adequately informed on the progressive steps of the medical profession and furthermore that the House of Delegates of the American Medical Association request the various state associations to assist in bringing about this publicity. This resolution was also referred to the Reference Committee on Legislation and Public Relations, which reported its pleasure in the resolution and recommended its adoption.

It therefore appears that the delegate from California, Dr. John W. Green, was not aware of the actions already taken by the Association in regard to implementation of its ten point program, but that the delegate from New York, Dr. Bauckus, was familiar with the actions taken and that the House of Delegates in the same session endorsed by one action the extent to which the Board of Trustees had implemented the activities requested by Dr. Bauckus the previous year and in the same session excused the Board of Trustees for not implementing these activities because of pressure of work.

The Board of Trustees would call attention to the fact that many of the activities included in the original resolution by Dr. Bauckus, presented in December 1945, have been accomplished by new legislation or by actions of the American Medical Association in relation to pending legislation. The Board of Trustees therefore presents at this time a report on the various points covered by Dr. Bauckus in his resolution and approved December 1945:

1 The President has not established a secretary of public health and medical welfare in the cabinet. The President did coordinate many medical functions under the Federal Security Administrator, and it is reported that legislation is pending for the establishment in the cabinet of the President of a secretary of health and welfare.

2. The Kilgore-Magnuson bill to encourage medical and other scientific research by government grants-in-aid passed the Senate but failed to receive consideration in the House. Representatives of the American Medical Association appeared at the hearings on this legislation and presented suggestions for modifications of the original measure, most of which were incorporated in the final draft of the bill passed by the Senate.

3. The Hill-Burton bill passed both Senate and House and was signed by the President. Already the board to administer this bill has had sessions, and procedures are under way to make the measure effective. This bill meets the requirements expressed by Dr. Bauckus under point 3 of his original resolution.

4. The Council on Medical Service of the American Medical Association has established standards for voluntary medical care plans and has encouraged the development of Associated Medical Care Plans, Inc., for the coordination of those plans. Many of the states have passed enabling acts which have met with the standards established by the medical profession. Many of the states have already established relationships with the Veterans Administration, and the program for medical care of the veterans has been approved by the House of Delegates.

5. The American Medical Association has established a department of public relations. It has expanded the services of its Bureau of Health Education, it has extended its radio programs, and it is undertaking further promotion of HYGEIA as a means of implementing to the utmost public information and educational services.

6. Apparently the principle that the function of government should be to encourage and assist rather than to compete with reputable voluntary health insurance plans has gained strength from the change in the complexion of the Senate and the House of Representatives, but the Board of Trustees of the American Medical Association and the Council on Medical Service will be continuously watchful to see that this principle is not violated in the development of new legislation.

PUBLIC RELATIONS AND THE RICH REPORT

At the session of the American Medical Association held in San Francisco in July, the Board of Trustees presented to the House of Delegates a digest of a considerable portion of the Rich Report on the public relations of the American Medical Association, together with a report from the Board of Trustees as to certain actions already taken by the Board to make effective some of the recommendations of Mr. Rich and the recommendations of the Board relative to making effective other of these recommendations.

The Board of Trustees did not at that time present to the House of Delegates the second portion of the Rich Report, which dealt with the relations of the American Medical Association to the National Physicians Committee. The complete report is now made available to the House of Delegates.

Several reasons prompted the Board of Trustees to withhold presentation of that section of the Rich Report having to do with the relationships of the Association to the National Physicians Committee and the rest of the report which concerned the functions of some of the councils and bureaus in the headquarters office. In the first place, the major portion of the report was received from Mr. Rich just a few weeks before the date of the annual session of the American Medical Association, and the Board did not have full opportunity to consider it in detail before presenting it to the House of Delegates. In the second place, the proponents of compulsory sickness insurance who had attended the hearings on the Wagner-Murray-Dingell bill before the Committee on Education and Labor of the United States Senate had concentrated some of their attacks on the American Medical Association on its relationship to the National Physicians Committee and had endeavored to break down public confidence in both the American Medical Association and the National Physicians Committee by a series of untruthful and unwarranted statements concerning both organizations and their relationship to each other. The Board of Trustees felt that it would be unwise, in view of the fact that the hearings on the Wagner-Murray-Dingell bill were in progress, to bring this matter before the House of Delegates at the San Francisco session, with the possibility that the public press might by its presentation of the subject and its discussions injure greatly the efforts of the American Medical Association and of the National Physicians Committee as well in combating this vicious legislation. Since that time the hearings on the Wagner-Murray-Dingell bill have been brought to a close without any recommendation by the committee; there has been an election which considerably changes the membership of the Senate and the House of Representatives; there is evidence that the Committee on Education and Labor, which will have such legislation in charge in the next Congress, will be of a different composition and with a different chairman. The hazard which prevailed in June no longer prevails. The Board of Trustees now presents the complete Rich Report to the House of Delegates for its consideration.

These reports should be considered confidential, as they concern the Association's activities only. Many of the recommendations made in the Rich Report have already been put into effect; others are still under consideration.

Attention is called to the fact that this report is copyrighted and cannot be reproduced in whole or in part without permission of the American Medical Association, which is the owner of the copyright.

Report of the Secretary

Dr. George F. Lull, Secretary, presented the following report, which was referred to the Reference Committee on Reports of Board of Trustees and Secretary:

To the Members of the House of Delegates of the American Medical Association:

The following interim report of the Secretary is respectfully submitted.

MEMBERSHIP

The number of members as of Dec. 1, 1946 was 129,145, an increase of 3,674 since Dec. 31, 1945.

FELLOWSHIP

On Dec. 31, 1945 there were 67,567 names on the Fellowship roster. As it was the wish of the House of Delegates to increase the number of Fellows, a campaign has been carried on during the past few months with this purpose in view. As of Dec. 1, 1946 the roster showed 71,553 Fellows, an increase of 3,986 in eleven months.

The difference between membership and Fellowship is not understood by a great many physicians. Members who are otherwise eligible and who subscribe for THE JOURNAL in many instances think that they are Fellows.

REAPPORTIONMENT OF DELEGATES

It will be recalled that a reapportionment of delegates was effected by the House of Delegates at the annual session in San Francisco. As the wording of section 3 of chapter I of the By-Laws of the Association was not changed subsequent to the decision to hold a supplemental session of the House, it would appear that the reapportionment is not effective until the next annual session in June 1947. The pertinent part of this section of the By-Laws reads "This apportionment shall take effect at the next succeeding annual session. . . ."

PHILIPPINE MEDICAL ASSOCIATION

It was taken for granted at the headquarters offices of the American Medical Association that when the Philippines became an independent nation on July 4, 1946 the Philippine Medical Association automatically ceased to be a constituent of this Association. Its name was removed from the list of constituent state and territorial medical associations, and the names of the members of the Philippine association were removed from the membership roster of the American Medical Association. This matter is reported to the House of Delegates in order that official action may be taken to signify that the Philippine Medical Association is no longer a constituent unit of the American Medical Association.

RESOLUTIONS TO BE PRESENTED TO HOUSE OF DELEGATES

Action taken by the House of Delegates at the San Francisco session provided that resolutions to be presented to the House shall be forwarded to the Secretary and published in THE JOURNAL as far as is possible thirty days prior to the meeting of the House. A number of such resolutions have been received and published. They also have been mimeographed.

Respectfully submitted,

GEORGE F. LULL, Secretary.

Report of Judicial Council

Dr. E. R. Cunniffe, Chairman, presented the following report, adding that a supplementary report would be presented later, and the Speaker announced that he would refer both when the supplementary report was presented:

To the Members of the House of Delegates of the American Medical Association:

The last meeting of the Judicial Council was held in July 1946 at San Francisco in conjunction with the annual meeting of the House of Delegates. At that time certain routine business was transacted. This consisted largely in recommendations of the applications for Associate Fellowship in the American Medical Association of foreign medical missionaries, the consideration of those candidates for Fellowship whose qualifications were questioned and the examination of all correspondence asking advice or opinions concerning the application of the principles of medical ethics to their particular situation. Hearings were also held on the appeal of the Northern Permanente Foundation against the decision of the Washington State Medical Association, which occupied most of the time of the three different sessions. Owing to the delay in the delivery of mail and the failure of the Washington State Medical Association to receive notice of the meeting, each side was allowed part of a meeting, and at a third session both sides appeared before the Council. It was agreed to wait for an answering brief from the Washington State Medical Association. When this brief was finally submitted, it was considered advisable to hold the matter over until the December meeting in order to allow sufficient time for a careful consideration of the material submitted. This appeal will come before the Council in December for further discussion and final disposition. There has been no Council meeting in the interim; hence this report will be brief and consist merely of a statement of the topics to be discussed at its next meeting.

The agenda for the forthcoming meeting will be much the same as usual, consisting of many questions concerning the interpretation of the Principles of Medical Ethics and the examination of numerous plans submitted for approval which involve the relations between ophthalmologists and optometrists. Many of these questions were answered by the Chairman offering his personal opinion, to be reviewed later by the Council. Most if not all of these proposed plans were unethical in that they violated chapter III, article I, section 5, of the Principles of Medical Ethics.

> It is unprofessional to receive remuneration from patents or copyrights on surgical instruments, appliances, medicines, foods, methods or procedures. It is equally unprofessional by ownership or control of patents or copyrights either to retard or to inhibit research or to restrict the benefit to patients or to the public to be derived therefrom. It is unprofessional to accept rebates on prescriptions or appliances, or perquisites from attendants who aid in the care of patients.

Some of these plans also involved the use of combined bills which has always been considered unprofessional and as tending to encourage the division of fees. All these plans will be reviewed by the Council. Its opinion will be sent to the individuals or societies seeking the information, and a more extended statement will be made in the 1947 report of the Judicial Council in regard to the ethics governing the relationship of ophthalmologists and optometrists. Many other inquiries were considered of such importance that no answer was given pending discussion by the Council at the next meeting.

Letters were received from roentgenologists and clinical pathologists asking for advice as to their rights in giving reports on interpretations of films or the results of clinical tests to a doctor who replaces another in charge of the case, even though requested to do so by the patient. Many hold the opinion that the consent of the first doctor who originally referred the case to him must be obtained before releasing these reports. The Council feels that at the request of the patient, preferably in writing, the reports should be immediately sent to the doctor then in charge of the patient. The diagnosis of the patient's ailment is paramount in arriving at the proper treatment to be rendered, and all information which aids the physician should be furnished so that proper treatment or advice can be given without delay. The question whether the contents of the report are to be given to the patient rests with the decision of the doctors who know all the circumstances involved in the situation.

In accordance with the resolution passed by the House of Delegates at the meeting in San Francisco, the members of the Council have under consideration the matter of revising the Principles of Medical Ethics. This proposition is being studied and will be discussed at this and future meetings so that recommendations may be reported at the next annual meeting to be held in Atlantic City in June 1947. As stated at the meeting in San Francisco, any suggestions from members of the House of Delegates will be gladly received and given serious consideration.

It might be advisable at this time, when voluntary prepayment health insurance plans are progressing and when some plans are being offered by others, not connected with the medical profession, in which the formation of medical groups is being encouraged, to discuss the ethics involved in this situation. The Council would therefore remind members of the Association that while solicitation of probable insurers or insurees is neces-

sary to the success of medical insurance plans and is permitted, the solicitation of patients either by individuals or by medical groups is absolutely forbidden.

In the formation of medical groups it is important to bear in mind that the division of income given to members must be in proportion to the value of the services contributed by each individual participant. To divide the income of the group equally after deducting expenses would be in fact the division of fees, which is not only unethical but in violation of the laws of some localities. It might be suggested that each group be required to file its plan for division of income with the local county or state society and that means be devised for insuring strict adherence to the ethical principles as enumerated by the American Medical Association. It might be well to call attention to the section of the Principles of Medical Ethics which covers group practice and which reads as follows:

> The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. As a group or clinic is composed of individual doctors, each of whom, whether employer, employee or partner, is subject to the principles of ethics herein elaborated, the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession.

Respectfully submitted,

EDWARD R. CUNNIFFE, Chairman.
LLOYD NOLAND.
JOHN H. O'SHEA.
LOUIS A. BUIE.
WALTER F. DONALDSON.

Report of Council on Medical Education and Hospitals

Dr. H. G. Weiskotten of the Council presented the following report, which was referred to the Reference Committee on Medical Education:

To the Members of the House of Delegates of the American Medical Association:

The major concerns of the Council on Medical Education and Hospitals of the American Medical Association at the present time relate to the reconversion of medical education to a peacetime status. Serious problems are confronted at all levels of professional education in the field of medicine from premedical education to the residency training of physician veterans.

PREMEDICAL EDUCATION

No provision has been made for the deferment of premedical students, and it is unlikely that such provisions will be made. Colleges throughout the country are experiencing tremendously increasing enrolments. Undoubtedly many of these students who are primarily veterans are carrying out premedical studies, although it is not possible to estimate their numbers. Furthermore, it is difficult to estimate what the quality of their work will be, although preliminary observations seem to indicate that the veterans as a group are performing excellently in educational programs.

MEDICAL SCHOOLS

Bona fide medical students in attendance at a recognized medical school are eligible for deferment under the Selective Service System. When the figures for the present freshman class have been assembled they will probably reveal a moderate decrease in enrolments. There are more women than formerly, and there are from 50 to 60 per cent veterans in the freshman class.

All medical schools have abandoned compulsory acceleration, although a few schools permit acceleration on a voluntary basis for selected students. All schools have returned to the annual admission of students. Medical schools in many instances are encountering financial difficulties because budgets were increased during the war, partly on the basis of increased tuition income resulting from the accelerated program, admissions of students every nine months, increased wartime enrolments and the payment by the government of out of state tuition fees in state institutions. Decreased tuition income following the war now necessitates appreciable increases in other support of medical education.

RESIDENCIES FOR PHYSICIAN VETERANS

A major project of the Council since the outset of the war has been to assist hospitals to increase their educational facilities for returning medical officers at the residency level. Compared with 5,256 approved residency positions in 510 hospitals in the year 1941, there are now, as of Oct. 10, 1946, 9,028 residencies in 948 hospitals approved by the Council. This represents an expansion of about 70 per cent in the educational facilities in hospitals. While many returning medical officers have been accommodated by these expanding opportunities, a good many medical officers have been unable to secure residencies. This increase in hospital residencies has tremendously increased the inspection and consultation services and responsibilities of the Council and its professional staff.

Ten of the American boards accept preceptor training in fulfilment of the educational requirements for the Board examinations. This preceptor training supplements residency training in an important manner.

The agreement of the Council with the Veterans Administration concerning the applicability of the educational provisions of the G. I. Bill of Rights to residency training has operated reasonably well except for delays in payments especially to institutions and the small sums paid most hospitals. In essence, this agreement recognizes approved hospital residencies as educational in nature, so that veterans are eligible for subsistence benefits even though the hospital may pay a modest stipend to the resident and even though the resident is provided with maintenance within the hospital. The agreement also provides for a small payment to the hospital—$15 a month per veteran—which may be increased if the hospital successfully negotiates a contract with the Veterans Administration setting forth the costs of maintaining the residency program.

RESIDENCIES IN THE FEDERAL SERVICES

The Council is collaborating with the Army, Navy and Veterans Administration in the establishment of acceptable residencies in selected federal hospitals with a view to improving medical care in those institutions and attracting a higher caliber of medical officer to service in one of these federal divisions.

The program with the Veterans Administration has gone somewhat further than in the Army and Navy. The program of close collaboration of veterans' hospitals with medical schools is proceeding rather favorably and the Council is assisting in furthering this collaboration. An important feature of the forty-third Annual Congress on Medical Education and Licensure, to be held in Chicago Feb. 10 and 11, 1947, will be a round table discussion on residency programs in veterans' hospitals in which medical school deans and representatives of the Veterans Administration will participate.

POSTGRADUATE COURSES

The Council is continuing to publish a semiannual listing of postgraduate courses. These listings have increased in size and diversity of subject matter presented and are contributing materially to meeting the needs of returning medical officers. It is particularly important to note that an increasing number of these courses is being offered by medical schools.

FOREIGN CREDENTIALS OF PHYSICIANS

The serious problem is now being faced of evaluating medical school credentials of physicians graduating from foreign medical schools. It is a policy of the Council to consider for inclusion on its list of approved medical schools only institutions which could be inspected by the Council.

In the past such inspections have not been possible outside the United States and Canada. Recognizing the desirability of some agreement regarding the evaluation of foreign credentials, the Council has organized a committee to study and report on this problem. On this committee there is representation from the Council on Medical Education and Hospitals of the American Medical Association, the Association of American Medical Colleges, the Federation of State Medical Boards of the United States, the Advisory Board for Medical Specialties, the National Board of Medical Examiners and the United States Office of Education. This committee is not yet ready to report its recommendations.

NATIONAL SOCIETY FOR MEDICAL RESEARCH

The National Society for Medical Research was organized because of widespread recognition of the need for a national organization to educate the public to a knowledge of the value in medicine of humane animal experimentation. This society has a permanent secretariat in Chicago and is effectively commencing operations to assist various local groups in carrying out campaigns to inform the public of the vast harm which would be done should various antivivisection proposals be adopted. There has been gratifying financial support for this organization from the medical schools. The Council recognizes the extreme importance of this work in the fields of medical education and research and wishes to urge the full support of the American Medical Association in the efforts of the National Society for Medical Research.

ANNUAL CONGRESS ON MEDICAL EDUCATION AND LICENSURE

The forty-third Annual Congress on Medical Education and Licensure, to be held in Chicago Feb. 10 and 11, 1947, will be devoted largely to such problems of reconversion in medical education as are discussed in this report to the House of Delegates.

STATUS OF EXISTING MEDICAL SCHOOLS

The approval status of the existing medical schools in this country is unchanged since the last report of the Council to the House of Delegates. Remaining on probation are the Hahnemann Medical College and Hospital of Philadelphia and the two schools of basic medical sciences in North Dakota and South Dakota.

Since July the following medical schools have been visited by the Council's staff for inspection or other purposes:

Medical College of Alabama, Birmingham.
University of South Dakota School of Medical Sciences, Vermillion, S. D.
University of Missouri School of Medicine and the Hospitals of Kansas City, Mo.
University of Vancouver, British Columbia.
University of Washington School of Medicine, Seattle.
St. Louis University School of Medicine, St. Louis.
University of Colorado School of Medicine, Denver.

NEW MEDICAL SCHOOLS

New medical schools are under discussion or in the process of organization in several areas throughout the United States.

The Medical College of Alabama has completed its expansion program from the former school of basic medical sciences to a four year institution and has graduated its first class. This institution has been inspected by the Council staff.

Other two year schools contemplating becoming full medical schools are the University of Mississipi, University of Missouri, University of North Carolina, University of North Dakota, University of South Dakota and West Virginia University.

Entirely new medical schools are being contemplated in Maine, California, Connecticut, New York and Florida. In these developments the Council is lending its guidance lest a low quality of medical education be established in such new institutions as may come to full fruition.

HOSPITAL SURVEY AND CONSTRUCTION ACT

With the passage of the Hill-Burton bill (S. 191) there has been formulated the required Federal Hospital Council as well as an Advisory Board to this Council. The Council on Medical Education and Hospitals is represented on this Advisory Board and will exert its influence in trying to maintain adequate standards of hospital care as well as a wise distribution of hospitals under this law.

REVISION OF ESSENTIALS

The Council presents for the consideration of the House of Delegates revisions of certain of the Council's Essentials. Both the "Essentials for Approved Examining Boards in Specialties" and the "Essentials for Approved Residencies and Fellowships" require clarification, expansion and revision in the light of the tremendous emphasis on hospital residencies and specialty certification at the present time. The Council recommends that the revised Essentials be adopted by the House of Delegates.

RESIGNATION OF THE SECRETARY

Dr. Victor Johnson has resigned as Secretary of the Council, effective April 1, 1947.

APPRECIATION

The Council on Medical Education and Hospitals of the American Medical Association is able to conduct its important work at a high level only because of the continued and enthusiastic support of the House of Delegates and officers of the American Medical Association. The Council deeply appreciates this support and desires in addition to extend its thanks to the many institutions throughout the country for supplying the Council with information and collaborating with the Council in its extensive inspection program.

Respectfully submitted,

H. G. Weiskotten, Chairman.
Harvey B. Stone.
Russell L. Haden.
J. H. Musser.
Reginald Fitz.
Charles Gordon Heyd.
Victor Johnson, Secretary.

Supplementary Report of Council on Medical Education and Hospitals

Dr. H. G. Weiskotten of the Council then presented the following supplementary report, which was referred to the Reference Committee on Medical Education:

The Council wishes to defer consideration by the House of Delegates of changes now being made in the "Essentials of Approved Residencies and Fellowships" until a later meeting of this House.

The Council recommends that there be a change in the title "Essentials of an Acceptable School for Clinical Laboratory Technicians" to read "Essentials of an Acceptable School for Medical Technologists." In conformity with this change in title of the document, the Council recommends changes throughout the text whenever the term "clinical laboratory technician" occurs to read "medical technologist."

As part of this supplementary report, the Council also includes the text of the proposed revision of the "Essentials for Approved Examining Boards in Specialties."

RECOMMENDED REVISION OF ESSENTIALS FOR APPROVED EXAMINING BOARDS IN SPECIALTIES

I. Introduction

The American Board of Ophthalmology, the first of the examining boards in the specialties, was incorporated in 1917. Four additional boards were organized by 1933 (Otolaryngology in 1924, Obstetrics and Gynecology in 1930, Dermatology and Syphilology in 1932 and Pediatrics in 1933).

In 1933 the House of Delegates of the American Medical Association adopted a resolution authorizing the Council on Medical Education and Hospitals "to express its approval of such special examining boards as conform to the standards of administration formulated by the Council" and providing for the employment of "the machinery of the American Medical Association, including the publication of its Directory, in furthering the work of such examining boards as may be accredited by the Council."

In 1933-1934 the Advisory Board for Medical Specialties was organized with representation from each of the approved boards to "act in an advisory capacity to such organizations as may seek its advice concerning the coordination of the education and certification of medical specialists." The Council on Medical Education and Hospitals and the Advisory Board for Medical Specialties work in close collaboration through joint meetings and frequent conferences.

II. Purpose and Functions of a Specialty Board

An American board in a specialty is organized (*a*) to assist in improving the quality of graduate education in that field, (*b*) to establish minimum educational and training standards in the specialty, in conformity with the general provisions of these "Essentials," (*c*) to determine whether candidates have received adequate preparation as defined by the board, (*d*) to

provide comprehensive examinations to determine the ability and fitness of such candidates and (*e*) to certify to the competence of those physicians who have satisfied the requirements of the board, as a protection to the public and the profession.

III. Organization

An examining board in a specialty to be approved by the Council on Medical Education and Hospitals should represent a recognized and distinct specialty or well defined field of medicine. It should be composed of representatives of the national organizations in the field as well as the related section of the American Medical Association. The board should be incorporated.

IV. Definition of Special Fields

The following branches of medicine at present are recognized as suitable fields for the certification of specialists. In each case the symbol employed in designating specialists in the Directory of the American Medical Association is given (A.B.I., and so on). Certain of the boards also certify candidates in subspecialties, as indicated by footnotes:

	Name of Board	Year of Incorporation
A.B. 1.	American Board of Pediatrics [1]	1933
A.B. 2.	American Board of Psychiatry and Neurology	1934
A.B. 3.	American Board of Orthopaedic Surgery	1934
A.B. 4.	American Board of Dermatology and Syphilology	1932
A.B. 5.	American Board of Radiology	1934
A.B. 6.	American Board of Urology	1935
A.B. 7.	American Board of Obstetrics and Gynecology	1930
A.B. 8.	American Board of Internal Medicine [2]	1936
A.B. 9.	American Board of Pathology	1936
A.B. 10.	American Board of Ophthalmology	1917
A.B. 11.	American Board of Otolaryngology	1924
A.B. 12.	American Board of Surgery [3]	1937
A.B. 13.	American Board of Anesthesiology	1938
A.B. 14.	American Board of Plastic Surgery	1937
A.B. 15.	American Board of Neurological Surgery	1940

1. Also certifies specialists in allergy.
2. Also certifies specialists in allergy, cardiovascular disease, gastroenterology and tuberculosis.
3. Also certifies specialists in proctology.

V. Qualifications of Candidates

Each applicant for admission to the examination should be required to present evidence that he has met the following standards:

A. General Qualifications:

1. Satisfactory moral and ethical standing in the profession.

2. A license to practice medicine in a state, territory or possession of the United States.

B. Professional Education:

1. Graduation from a medical school of the United States or Canada approved by the Council on Medical Education and Hospitals of the American Medical Association. Candidates who submit credentials from institutions outside the United States and Canada should be required to pass the examination of the National Board of Medical Examiners.

2. Completion of an internship of not less than one year in a hospital approved by the same Council.

C. Special Training:

1. A period of special training after the internship, preferably three years, in clinics, dispensaries, hospitals or laboratories approved by the Council on Medical Education and Hospitals and the respective specialty board as competent to provide a satisfactory training in the special field of study. In individual instances specialty boards may grant training credit for work done in preceptorships. Candidates whose special training has been received outside United States should submit credentials satisfactory to the examining boards. Credits for military service may be granted by individual boards.

2. This specialized training preparation shall likewise:

(*a*) include satisfactory graduate training in the basic sciences which is considered by the American board necessary to the proper understanding of the specialty in question:

(*b*) be supplemented by an additional period of not less than two years of training and/or practice in the special field concerned.

(*c*) be evaluated by examinations which should include the basic medical sciences as well as the clinical, laboratory and public health aspects of the specialty.

VI. Establishment of an Acceptable Specialty Board

In considering the organization of an American board in a special field of medicine seeking recognition by the Council on Medical Education and Hospitals of the American Medical Association the procedure is as follows:

A. The application should be presented to the Advisory Board for Medical Specialties. This board in turn shall inform the Council on Medical Education and Hospitals fully regarding the application.

B. The application after being received from the Advisory Board for Medical Specialties will be carefully deliberated by the Council, due consideration being given to the need for a new board, the relationship of that board to the existing boards and the adequacy of the proposed educational programs and available facilities for the preparation of physicians for the certification examinations.

C. The Council will approve new boards only after recommendation by the Advisory Board for Medical Specialties.

D. Official recognition of the board is indicated by listing the specialty in the "Essentials for Approved Examining Boards in Specialties" and indicating certified specialists with an appropriate symbol in the Directory of the American Medical Association.

VII. Residencies in the Specialties

Procedures for considering an institution for approval of a residency for training in a recognized specialty are as follows:

A. The institution should make application to the Council on Medical Education and Hospitals of the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

B. The Council conducts a survey of the institution to determine whether the residency complies with the Council's "Essentials of Approved Residencies and Fellowships."

C. The Council prepares a report on its findings and conclusions which is submitted to the specialty board concerned for its recommendations.

D. Approval may then be granted by the Council.

VIII. Withdrawal of Approval

On conference with the respective specialty boards or with the Advisory Board for Medical Specialties, the recognition extended by the Council on Medical Education and Hospitals of the American Medical Association to holders of certificates from special examining boards, or that granted to a specialty board, may be withdrawn. Approval may likewise be withdrawn from institutions offering residencies when resurveys by the Council reveal a failure of the institution to maintain a satisfactory educational program.

Report of Council on Scientific Assembly

Dr. E. L. Bortz, Chairman, presented the following report as well as proposed tentative programs of the General Scientific Meetings and sections the official copy of which will be published in the program for the Atlantic City Session, which was referred to the Reference Committee on Medical Education:

To the Members of the House of Delegates of the American Medical Association:

The Council on Scientific Assembly met with the secretaries of the various sections on Sept. 21, 1946 in the headquarters of the American Medical Association. Plans were discussed for the Centennial Celebration meeting in Atlantic City in June 1947.

The General Scientific Meetings will be under the direct supervision of the Council on Scientific Assembly. These meetings will be held Monday afternoon, Tuesday morning and Tuesday afternoon, June 9 and 10. Each meeting will have as its presiding officer a member of the Council. Nine papers will be presented by well known authorities in American medicine on topics of importance to the membership of the Association. The Committee on Centennial Celebration has

authorized the Council to invite a distinguished guest to appear on each of the three programs. Each of these men will be assigned a prominent position on the schedule just preceding intermission during the three scientific sessions.

Three panels will be introduced on the program of the General Scientific Meetings. The panels will be on the topics Modern Management of Heart Disease, Emergency Surgery and Antibiotic Therapy. Each of these will be presided over by a distinguished American authority, and assisting him will be experts who will discuss particular phases of the subject. Following these presentations there will be a question and answer period, and finally each panel will conclude with a general summary by the leader of the panel.

The sections of the Scientific Assembly will offer discussions of the first importance in their particular fields by qualified speakers. A historical summary is to be presented by a prominent leader in each field. Each section will have the privilege of inviting a distinguished foreign guest to appear on the program.

The Section on Miscellaneous Topics is divided into three sessions for the Centennial Celebration. One session has been allotted to Allergy, another to the History of Medicine and a third to Physical Medicine. The names of distinguished American leaders have been chosen by the Council to act as chairmen and secretaries, who will be responsible for the details of each of these important sessions.

The Council, with the cooperation of the section secretaries, has drawn up a series of suggestions for each of the speakers appearing on the program, with due emphasis on the type of presentation which is most acceptable to the audience, the manner of showing slides, illustrations, graphs and so forth.

The Council on Scientific Assembly has taken under advisement recommendations for the formation of certain new sections.

Respectfully submitted,

EDWARD L. BORTZ, Chairman.
CLYDE L. CUMMER.
CHARLES H. PHIFER.
HENRY R. VIETS.
L. W. LARSON.
OLIN WEST.
MORRIS FISHBEIN. } Ex officio.
GEORGE F. LULL.

Report of Council on Medical Service

Dr. E. J. McCormick, Chairman, presented the following report, which was referred to the Reference Committee on Medical Service:

To the Members of the House of Delegates of the American Medical Association:

PREPAYMENT PLANS

The voluntary prepayment medical care program has progressed rapidly since the House of Delegates met in Chicago in December 1945. Seventeen plans in fifteen states have been started in 1946. This brings the total number of plans to over eighty spread out over thirty-three states, Hawaii and Puerto Rico. In addition thirteen states and the District of Columbia are in various stages of plan development, leaving only two states with no program in progress. The rapid growth in the number of plans will necessarily give impetus to the growth in enrolment. Already enrolment in many of the plans less than a year old exceeds 50,000, and several plans are approaching the 100,000 mark. Last year at this time only two plans had over 250,000 enrolment; at present five of the plans are in this group, with one nearing the million mark and three approaching 500,000. It seems possible that the 5,000,000 goal will be reached shortly after the first of the year.

The Council will continue to concentrate on the overall national picture as it pertains to voluntary prepayment medical care plans. Staff members have met with state committees and assisted in laying the groundwork for prepayment programs. Data and information on plan activities continue to be gathered and reported through the News Letter and individual correspondence. A revision of the brochure on Prepayment Plans is in progress and should be ready for distribution in February.

The technical problem of plan administration will be handled by Associated Medical Care Plans, an organization of the Plans themselves with headquarters in the Council office. Associated Medical Care Plans will work with the Council and will assist the Plans on such problems as reciprocity, sales training programs, standard policies for recording data and other administrative details.

The Seal of Acceptance, as of Nov. 1, 1946, has been granted to twenty-seven medical society approved plans. Using the Seal of Acceptance as a symbol for public identification, the Council hopes to be able to put forth special effort in publicizing prepayment, both to the public and the medical profession.

NATIONAL HEALTH CONGRESS

In the Council's last report to the House of Delegates the suggestion was made that, before setting up a National Health Congress it might be best to survey the status of existing local health groups. With this in mind, and with the approval of the House, the Council is proceeding with the collection of information on state and local health councils. Of the forty-two states answering the Council's questionnaire, nineteen have a statewide health council of some type, twenty have no such organization and three are in the process of forming such a group. A meeting of representatives from existing health councils is planned for early in 1947. From this meeting the Council hopes either to draw up a model program or to set forth specific recommendations for the expansion of the health council idea.

SPEAKERS' BUREAU

A questionnaire concerning the advisability of having a "briefing" course at American Medical Association headquarters has been sent to all the state medical societies. The response has been encouraging. Thirty states have answered the Council's letter. Fourteen already have a speakers' bureau. Twenty-two approve the "briefing" idea, six are not interested and two said they didn't know.

The purpose of the course will be to provide a select group of doctors with sufficient background, information and material so that they may return to their home state and organize county society Speakers' Bureaus. The letters received indicated an interest in factual data, in a supply of material to be distributed to doctors "back home" and in competent instruction in the art of public presentation. In order to keep the group small enough to handle, it may be necessary to have two courses; that is, an east and a west group.

UNITED MINE WORKERS HEALTH FUND

As instructed by the House of Delegates at San Francisco, the Council on Medical Service has followed closely the developments concerning the United Mine Workers Health Fund and the Welfare and Retirement Fund. The principal activity so far has been the survey of conditions existing throughout the bituminous coal mine areas. This survey was made by Navy field teams under the direction of Rear Admiral Joel T. Boone. Representatives of the Council on Medical Service and the Council on Industrial Health accompanied one of the survey teams on a visit to the mine areas to observe at first hand the methods used in making the survey. Representatives have also attended conferences on the survey held by Admiral Boone. The survey recommendations have not been released and any comments must necessarily be postponed until such release is made. A joint report by the Council on Medical Service and the Council on Industrial Health appeared in the Oct. 26, 1946 issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. A supplementary report undoubtedly will be made to the House of Delegates.

TAFT-SMITH-BALL BILL

Early this fall the Council asked each state medical society to submit its suggestions and opinions on the Taft-Smith-Ball bill. At that time it was anticipated that a meeting might be held soon with Senator Taft to discuss the bill. The meeting will be scheduled for some time after the first of the year. The Council is under the impression that Mr. Taft intends to

submit this bill to the Senate at the earliest possible moment and therefore wishes to be in a position to relate to him the opinions of the various state medical societies.

HILL-BURTON BILL

At the request of the Board of Trustees, the Council has contacted the state medical societies in an effort to impress on them the importance of preparing a plan of cooperation for putting into effect the provisions of the Hill-Burton bill. When the states have completed the hospital survey and the material has been placed in the hands of the American Hospital Association, the results of these surveys will be utilized in developing a statewide hospital construction plan. What part the medical profession plays will depend on its preparedness and willingness to cooperate with other groups in utilizing funds provided for in the bill. As a service to the states the Council is preparing a statement of principles as a guide to such cooperation and a set of minimal standards for diagnostic clinic facilities. Because of the extreme importance of this program, the Council presents the following recommendations to the House of Delegates:

The importance of the Hill-Burton Hospital Construction bill in the overall program of medical and hospital care should be recognized by all medical societies, state and county.

The medical profession, through its state and county medical societies, should be encouraged to participate actively in plans or programs formulated under the bill.

This participation should include an early review by the state medical societies of the membership making up the advisory council to the state agency charged with the responsibility of carrying out the provisions of the bill to determine the adequacy of medical representation.

This participation should include a positive effort to see that local autonomy is maintained; that facilities are placed only where a specific need for them is shown; that any diagnostic clinic facilities be erected only with the approval of the county medical society in whose area they are placed.

PUBLIC ASSISTANCE PROGRAMS

A number of state medical societies have inquired as to ways and means of organizing medical care programs for recipients of public assistance funds. Little attention has been given to this problem during the past six years, yet it continues to grow in importance. In anticipation of a future downward economic trend, the Council is gathering information and data on such programs. Special attention is being given to the possibility of utilizing existing prepayment plans.

REGIONAL CONFERENCES

The Council is continuing its program of regional conferences but is making every effort to coordinate these conferences with existing meetings. In line with this policy the regional conference in St. Paul was held in cooperation with the North Central Medical Conference on November 10. The conference was attended by about eighty persons and was probably one of the most interesting and informative that the Council has had up to date. The Council has also cooperated with the Middle Atlantic States Public Relations Conference at a meeting held in Philadelphia on November 21. The Middle Atlantic group is a permanent organization resulting from the original Council conferences held in that area and follows somewhat the pattern of the New England States group. Other conferences are planned for other sections of the country.

STUDIES AND PUBLICATIONS

Compulsory Sickness Insurance: The Council is continuing its work on the gathering of information on this subject and, in addition to the brochure entitled "Voluntary Health Insurance vs. Compulsory Sickness Insurance," has printed a set of cards to be used by doctors in giving talks on the subject.

Cooperatives: The Council is gathering information and data relative to the medical cooperative movement throughout the country. This is partly an informative study and partly for the purpose of providing information which can be given to doctors interested in this particular type of medical practice.

Contract and Group Practice: Because of the many requests for information concerning this particular type of medical practice, the Council is planning to bring the original material prepared by Dr. R. G. Leland up to date.

News Letters: Because of the growing amount of material to be used in the News Letters, the Council found it necessary to have them printed rather than mimeographed. This provides for from two to three times as many words and makes a more easily read and attractive publication.

Miscellaneous: Each week many questions arise concerning problems of medical service on which there are insufficient information and data. As a result the Council staff is making a number of studies and compilations which will eventually be published in printed form.

FILM ON PREPAYMENT

The Council has been investigating the possibility of having a film produced on prepayment medical care plans. This film would be of such a nature as to be available to medical societies and various prepayment plans in the carrying on of educational campaigns. Suggestions as to name, length, size of film, continuity and so on have been set forth in a special report to be used in conference with a film producing agency. Tentative cost for such a film seems to be somewhere in the neighborhood of $30,000. The project is being arranged with the Bureau of Exhibits.

CONTACTS

The Council has continued its contacts with many special groups, such as the American Dental Association, National Tuberculosis Association, American Cancer Society and American College of Radiology.

PRIVATE INSURANCE CONFERENCES

During the past few months, the Council has had a series of conferences with representatives from private insurance carrier associations. These meetings were called to discuss problems of mutual interest and resulted in better understanding on each side. In a joint effort to go into more detailed studies of some of the problems, two subcommittees were appointed, one on cooperation and the other on rural enrolment. These subcommittees have recently met in New York and plan further conferences next year.

One of the problems discussed had to do with a simplification of insurance forms. Some time ago the Health and Accident Underwriters Conference and other interested insurance organizations prepared a simplified claim blank to be used by insurance companies in securing medical information from physicians with regard to disability claims. These simplified blanks were submitted for American Medical Association approval and were approved by the Board of Trustees in November 1944. Permission was then sought to imprint this approval on the claim blanks. The Board of Trustees was of the opinion it would be more desirable to have such forms approved by one of the Councils rather than by the American Medical Association and suggested the Council on Medical Service. At the New York meeting of representatives of the American Medical Association and insurance associations the insurance representatives expressed the desire that the Council on Medical Service review, approve and permit the imprint of Council approval on acceptable insurance claim blanks requiring medical data. The Council hesitates to proceed further with this project without specific approval by the House of Delegates.

WASHINGTON OFFICE

The Washington office has new, larger and more attractive quarters at 1302 18th Street N. W. and is now in the process of acquiring proper furnishings. The work should be complete by the time Congress convenes.

The office is engaged at present in reconstructing its filing system so that information and data may be made more easily available to Congressmen and interested organizations. The many and great variety of requests make it necessary to maintain a more voluminous file than was originally anticipated.

The final volumes of the minutes of the hearings on the National Health bill have been printed and are being distributed.

The Director has participated in numerous discussions and round tables on this subject and has assisted the Chicago office in distributing material to students, Congressmen and interested groups.

Every effort is made to be of assistance to individuals and organizations. Expansion of services and personnel is planned to facilitate giving this assistance.

HEADQUARTERS OFFICE

The Council has been provided with almost double its former amount of office space. The personnel has been increased in the past few months from four to eight persons. Mr. Howard Brower, formerly of the state department of insurance of the state of Michigan, and Mr. L. S. Kleinschmidt, formerly of the U. S. Department of Agriculture, Farm Security Administration, are two new assistants. Mr. Brower is working primarily on insurance programs and Mr. Kleinschmidt on community and rural enrolment in prepayment plans. This, in addition to the increase in office staff, gives the Council a reasonable opportunity to carry on the activities assigned to it. The volume of office work continues to increase as the state and county medical societies, the individual physicians and the public discover the services the Council can and will render to them. With this increase has also come a demand for personal appearances on meeting programs and personal attendance at committee conferences. The Council members, the Council secretary and other staff members are making every effort to fulfil this demand.

The Council is prepared at the present time to present to the members of the House of Delegates and to those who are interested a card system for the purpose of aiding and helping those who are speaking on the subject of compulsory health insurance and prepayment medicine. These are just off the press and are available.

The Council would likewise like to call to your attention the booklet called "Check and Double Check" on sickness insurance which has been published under the Public Relations Bureau of the Medical Society of the State of New York. Dr. Dwight Anderson told me this morning that this booklet is available for all of you in the lobby. The Council would be well pleased if all members of the House would avail themselves of the opportunity to procure all of these booklets in connection with the Speakers' Bureau venture.

Respectfully submitted,

E. J. McCormick, Chairman.
Raymond L. Zech.
James R. McVay.
Alfred W. Adson.
Walter B. Martin.
Thomas A. McGoldrick.
Roger I. Lee.
H. H. Shoulders.
Louis H. Bauer.
George F. Lull.
Thomas A. Hendricks, Secretary.

Supplementary Report of the Council on Medical Service

Dr. McCormick presented the following supplementary report of the Council on Medical Service, which was referred to the Reference Committee on Medical Service:

The Council on Medical Service at its meeting held Saturday evening, December 7, and Sunday, December 8, arrived at a number of decisions which it felt necessary to add to the original report to the House of Delegates. They are as follows:

NATIONAL HEALTH CONGRESS

With further reference to the National Health Congress mentioned in the semiannual report, the Council has further recommendations to make.

The formation of state or local health councils to meet local needs and enlist the cooperation of other interested bodies has merit. The Council will continue to work on the program and will call a meeting of local health councils and others interested to discuss the value of such councils and draw up a model outline for the formation and scope of such councils.

The Council, however, after much study feels that to set up a National Health Congress as a permanent body is not advisable. Such a body would be bound to duplicate the efforts of, and to a certain extent usurp the prerogatives of this House of Delegates and other bodies of the American Medical Association.

In the opinion of the Council, it would be far better for the Board of Trustees, the Council on Medical Service and other councils of the American Medical Association to call conferences, whenever deemed advisable, on subjects on which the advice and cooperation of other bodies is desirable. In this way different groups could be called on in matters pertaining to their specific fields, and there would not be one set group to consider every subject.

The Council, therefore, requests the House to rescind its previous instructions to the Council to proceed with the establishment of a National Health Congress.

CHILDREN'S BUREAU

The Council presented a resolution to the House of Delegates at its December 1945 meeting in which a number of recommendations were made concerning the Children's Bureau. This resolution came as a result of a conference on Legislation and Public Relations held some time prior to the meeting of the House of Delegates. The House approved the resolution.

While no request for action was reported back to the Council on Medical Service, we should like to report at this time that one of the principal subjects of the resolution, the transfer of the Children's Bureau to the Federal Security Administration, is now an actuality and that the Council plans to attend a meeting in Washington in the near future, at which time it hopes it may be of considerable assistance in furthering the intent of the resolution.

FILM ON PREPAYMENT

In its regular report to the House of Delegates the Council reported on progress being made with reference to a motion picture on prepayment plans. After further study the Council believes that the project is unpractical and too expensive at the present time.

THE HILL-BURTON LAW

The following special report on the Hill-Burton Law is submitted:

SUGGESTED PRINCIPLES TO GOVERN COOPERATION IN HILL-BURTON LAW PROGRAM

I. Introduction

In extending the best possible medical care under the proposals of the Hill-Burton legislation, consideration has been given to the establishment of diagnostic and health centers in areas where the grouping of medical personnel and facilities will improve the health of the community. The success or failure of the health program under such an arrangement will depend in large measure on the leadership of the profession and the type and quality of medical care given. With this in mind the medical profession, through the Council on Medical Service and the Council on Medical Education and Hospitals of the American Medical Association, has been asked by governmental agencies to draw up standards governing medical care in these health centers.

II. Background

1. Action by Board of Trustees: This assignment came as the result of the following action by the Board of Trustees Sept. 19-20, 1946:

"The Secretary and General Manager reported that he had sent Mrs. Virginia Shuler to Washington recently to consult with representatives of the United States Public Health Service regarding the Hill-Burton bill and that she had reported to the Executive Committee that those with whom she had consulted in Washington were of the opinion that the medical profession could be of great service in the Hill-Burton program if it would set up standards which would combine medical service with the health center idea. The Executive Committee voted to ask the Council on Medical Service and the Council on Medical Education and Hospitals to define a health center and to draw up standards for the rendering of medical care and preventive medical services in a health center.

"The Board, on motion duly seconded and carried, approved the recommendation of the Executive Committee that the Council on Medical Service and the Council on Medical Education and Hospitals be asked to set up standards." (From Minutes of Board of Trustees, Sept. 19-20, 1946.)

2. Board Calls on Council: Drs. Roberts and Fitzgibbon reported this action of the Board of Trustees to the Executive Committee of the Council on September 18. They indicated the need for a set of basic principles and suggested that these be included in the reports of the Council on Medical Service and the Council on Medical Education and Hospitals to the House of Delegates.

3. News Letter, Vol. III, No. 1, October 18: "Success of Hill-Burton Program Depends on State Action" was the title of News Letter of the Council on Medical Service of October 18, giving suggestions for action and setting forth development of the Federal Hospital Council and the Advisory Committee meetings in Washington.

4. Hill-Burton Bill Provides for Standards: "Sec. 623. (d) If any state, prior to July 1, 1948, has not enacted legislation providing that compliance with minimum standards of maintenance and operation shall be required in the case of hospitals which shall have received federal aid under this title, such state shall not be entitled to any further allotments under section 624."

5. Recent Developments in Washington: Since passage of the Hill-Burton bill, a special committee was appointed by the Federal Hospital Council and a meeting of that committee was held November 7. Following is the text of a release from the Federal Hospital Council dated November 7:

Declaring that 40 per cent of the counties in the United States have no registered hospitals, representatives of farm organizations today testified to the urgent need for hospitals and health facilities in rural sections of the country.

Meeting as a committee to advise the Surgeon General, U. S. Public Health Service, on rural health problems, they pointed out that the farmers are deeply concerned about raising the health standards of their own communities. They want to know more about the cost of hospitals and how they can be built with federal aid. Moreover, they are interested in a coordinated system of hospitals that will make available modern hospital services to every person regardless of where he lives.

The committee was appointed by the Federal Hospital Council, recently organized to help the Surgeon General administer the Hospital Survey and Construction Act, which provides for a nationwide program of hospital construction. While not all members of the committee were present at today's meeting, the membership includes J. Melville Broughton, Federal Hospital Council, chairman; Ransom E. Aldrich, American Farm Bureau Federation; Joseph W. Fichter, National Grange; Mrs. Gladys T. Edwards, Farmers Union; Miss Elin Anderson, Health Specialist, Department of Agriculture; Dr. M. L. Wilson, Federal Extension Service, Department of Agriculture; Mrs. Agnes Meyer, Advisory Committee to the Federal Hospital Council; Gordon Leith, National Council of Farmer Cooperatives; Dr. Michael Davis, Federal Hospital Council; Graham Davis, Federal Hospital Council, and Dr. Franklin S. Crockett, Advisory Committee to the Federal Hospital Council. William R. Ogg of the American Farm Bureau Association represented Mr. Aldrich at the meeting.

A model hospital licensing act is under consideration by a committee of ten organizations, including the American Medical Association and the American Hospital Association, and copies will be distributed by the Council on State Governments. The need of such legislation is emphasized by the development of the Hospital Construction Program under Hill-Burton legislation.

III. General Recommendations to House of Delegates

1. *General Recommendations:* The Council on Medical Service in its report to the present session of the House of Delegates deals generally with this subject as follows:

At the request of the Board of Trustees, the Council has contacted the state medical societies in an effort to impress upon them the importance of preparing a plan of cooperation for putting into effect the provisions of the Hill-Burton law. When the states have completed the hospital survey and the material has been placed in the hands of the American Hospital Association, the results of these surveys will be utilized in developing a state-wide hospital construction plan. What part the medical profession plays will depend upon its preparedness and willingness to cooperate with other groups in utilizing funds provided for in the bill. As a service to the states, the Council is preparing a statement of principles as a guide to such cooperation and a set of minimal standards for diagnostic clinic facilities. Because of the extreme importance of this program, the Council presents the following recommendations to the House of Delegates:

The importance of the Hill-Burton Hospital Construction bill in the overall program of medical and hospital care should be recognized by all medical societies, state and county.

The medical profession, through its state and county medical societies, should be encouraged to participate actively in plans or programs formulated under the bill.

This participation should include an early review of the membership of the advisory council to the state agency charged with the responsibility of carrying out the provisions of the law in order to determine the adequacy of medical representation. If necessary, action should be taken by the state medical association to obtain acceptable medical representation.

This participation should include a positive effort to see that local autonomy is maintained; that facilities are placed only where a specific need for them is shown; that any diagnostic clinic facilities be erected only with the approval of the county medical society in whose area they are placed.

IV. Specific Recommendations

It is recommended that the following subjects receive special consideration:

(1) *Definition of a Health Center:* From the point of view of the medical profession, a health center is an institution in a community which houses the public health functions of a community and which makes available to the medical profession equipment and technical personnel to aid in the prevention, diagnosis and treatment of disease.

In the Hospital Survey and Construction Act the health center is defined as follows: "The term 'public health center' means a publicly owned facility for the provision of public health services, including related facilities such as laboratories, clinics and administrative offices operated in connection with public health centers."

2. *Principles for Operation of Health Centers:* (*a*) Cooperation with County Medical Societies: In any community in which a health center is organized, the advice and cooperation of the medical profession of that community, through the county medical society, shall be sought in order to assure cooperation and efficient use of facilities and services offered. (*b*) Participation of Practitioners: The extent to which each practitioner of a county utilizes the services of a health center shall be determined with the local medical profession. Emphasis shall be placed on the basic principle that diagnosis, treatment and medical care of the individual is not the function of a health center but of the medical profession. (*c*) Emergency Beds for Medical and Surgical Care: Since bed facilities may be required in certain communities for making a diagnosis, such beds shall be available, but patients shall be transferred to the nearest available hospital as soon as the diagnosis and condition of the patient permit. Such beds may also be available for emergency use in such instances as their use may be requested by the physician. (*d*) Radiologic, Pathologic and Other Laboratory Services: The provision of health centers is closely related to the supply of radiologic, pathologic and other special services for use of the general practitioner in areas where these services are not otherwise available. Therefore the decision for the establishment of such facilities in any health center, the remuneration for such services and other details shall be determined by joint agreement of the local public health authority and the county medical society. Principles of relationship between hospitals and radiologists, anesthetists and pathologists approved by the House of Delegates in 1944 should apply (see Proceedings of the House of Delegates of the American Medical Association, 1944, pages 78-79-80). Should it become necessary to establish agencies for standardization of radiologic, pathologic and laboratory services, the representative organizations in the fields concerned should be asked to participate. (*e*) Maternal and Child Health Care: The National Health Program of the American Medical Association states that "every child should have proper attention, including scientific nutrition, immunization and other services included in infant welfare. Such services are best supplied by personal contact between the mother and the individual physician but may be provided through child health centers administered locally with support by tax funds whenever the need can be shown." Child Health Centers may be considered a necessary part of the services of a Health Center. (*f*) Need for Experimentation in Health Center Activities: The Council is convinced that experimentation in the scope and functions of health centers will be required toward evolving satisfactory conduct of such institutions.

(To be continued)

Washington Letter

(From a Special Correspondent)

Dec. 16, 1946.

State Health Officers Oppose Public Medical Care Programs

The conference of state and territorial health officers adopted a committee report opposing public medical care programs such as the Wagner-Murray-Dingell compulsory health insurance proposal, because of the shortage of trained medical personnel in the country. The report stated that "neither state health departments nor any other state agencies would be able successfully to carry on such a program at this time." It was revealed that the shortage of administrative professional personnel is so great that 40 million persons in the United States do not have the benefit of a full time health department. Medical care in private practice, it was stated, is also too scarce to permit the extra burden which a public health care program would necessitate to be assumed. Another committee report stated that limited progress had been made in the control of leprosy in the last twenty-five years, and an increase in the number of cases was expected through contacts of servicemen during wartime and through infections brought in by immigrant labor. The 1,000 to 3,000 leprous persons in this country are mostly in the South, the disease being reported to be endemic in the native populations of California, Texas, Louisiana and Florida. Other resolutions urged that the U. S. Public Health Service expand research toward prevention or cure of tuberculosis with increased study of BCG vaccine, that local health departments have special nutrition divisions, that legislation be sought for enrichment of all white bread and flour and the addition of iodine to all table salt and that hospitals expanding under the Hospital Survey and Construction Act consider the need for more maternity facilities.

Hospital Act Explained to Health Officers

Dr. Wane Hoge, chief of the Division of Hospital Facilities, U. S. Public Health Service, explained provisions of the Hospital Survey and Construction Act to state and territorial health officers attending a five day conference in Washington. Federal aid will be given to the states and territories so that they can build enough hospitals to serve all the people. The act provides two funds, $3,000,000 for surveys and planning, and another for construction, totaling $375,000,000, which has not yet been appropriated. The federal government will pay a third and the states two thirds of the costs of surveys based on population. Construction allotments will be based on population and per capita income. New hospitals will be required to serve every race, creed and color.

Congress to Consider Bills to Curb Sale of Sleeping Drugs

Two bills will be introduced in the eightieth session of Congress to curb bootlegging and illegal sale of barbiturates and other sleep-inducing drugs. A bill sponsored by medical and pharmaceutical groups would be all embracing in scope, seeking to control the traffic in such drugs from the manufacturer to the consumer. Providing for control at the state level, it is expected to afford a "near perfect" check on all hypnotic drugs, according to Dr. Augustus C. Taylor, president of the pharmacy board. Another bill, sponsored by the District of Columbia Federation of Women's Clubs, aims to check illicit sales of sedatives at the retail druggist level, but Dr. Taylor says this measure does not go far enough.

Reformatory Inmates to Assist in Research on Common Cold

Inmates of Lorton Reformatory here have volunteered to assist in research being conducted by the National Institute of Health on the common cold. They will be infected with colds in groups of 8 or 10 volunteers, and nasal and throat washings will be used to cultivate the cold organism, believed to be a virus. It is hoped to develop effective vaccines and drugs. Dr. Norman Topping, who developed the serum used against Rocky Mountain spotted fever, will conduct the experiments as part of the $50,000 cold research program.

General Erskine Accuses Communities of Neglecting the Disabled

Major Gen. Graves B. Erskine, U. S. C., chief of the Labor Department's retraining and reemployment administration, informed a veteran affairs conference here that "too many communities have allowed their disabled citizens to depend for their existence on pensions and charity instead of making sure that these persons had the opportunity of taking part in a rehabilitation program." The general declared that he had seen on the streets of Washington "more beggars, most of them disabled, than in any city outside of China." Walter Bura, director of the Veterans Administration Prosthetic Appliance Service, declares that there has been improvement in both the quality and the quantity of artificial limbs being supplied.

Mental Illness Reported to Be Bigger Problem Than Poliomyelitis

Dr. Addison Duval, clinical director of St. Elizabeths Hospital, told parent-teacher groups that "mental illness is a bigger problem than poliomyelitis." He estimated that 1 out of every 25 children entering high school this year could be expected to be a patient in a mental hospital. Dr. Duval said that nearly half of the naval mental patients at the hospital suffering from "gross mental illness" came from homes broken before the child was 13 years old.

Dr. Sterling V. Mead, New Dental President, Honored

Dr. Sterling V. Mead, new president of the American Dental Association, was tendered a testimonial dinner here by 400 well wishers, among them the medical chiefs of the Army, Navy and Veterans Administration and leaders in the dental and medical professions. Dr. Joseph A. Madden, president of the District of Columbia Dental Society, presented a 16 gage shotgun to Dr. Mead, an ardent sportsman.

Miss Frances Perkins Opposes Physical Examinations for Federal Workers

Miss Frances Perkins, U. S. Civil Service Commissioner, has expressed her opposition to physical examinations for federal workers. Under existing laws all new federal employees are required to produce doctor's certificates. The Council of Personnel Administration has worked out a new, improved certificate for this purpose.

Veterans Advisory Group

Dr. Charles W. Mayo of the Mayo Clinic, Rochester, Minn., has been named chairman of a special advisory committee on medical care for veterans, formed by the Veterans Administration with a membership of nineteen nationally known doctors, nurses, social workers and dietitians. The group will give advice regarding policy on all phases of treatment and care in veterans' hospitals and homes.

National Requirements for Student Nurses

Beatrice R. Ritter, director of nursing at Gallinger Hospital, told the Maryland-District of Columbia Hospital Association that 41,000 student nurses would be needed to meet minimum nationwide requirements, but she said that the "home, school and even the church" do not encourage young women to undertake the discipline and sacrifice involved in becoming nurses.

The Closed Head Syndrome

The Army Medical Corps has issued a report on a hitherto unrecognized war malady, a brain condition traced to long exposure to the blast waves set up by exploding shells. The condition found on the tightly enclosed tissue of the brain is termed "closed head syndrome," and its symptoms include headache, ringing ears, deafness and anxiety.

Coming Medical Meetings

Annual Congress on Medical Education and Licensure, Chicago, Palmer House, Feb. 10-11. Dr. Victor Johnson, 535 N. Dearborn St., Chicago 10, Secretary.

Mid-South Postgraduate Medical Assembly, Memphis, Tenn., Feb. 11-14. Dr. Arthur F. Cooper, 1479 Carr Ave., Memphis, Secretary.

Southeastern Allergy Association, Atlanta, Ga., Jan. 18-19. Dr. Katharine B. MacInnis, 1515 Bull St., Columbia 49, S. C., Secretary.

GOVERNMENT SERVICES

ARMY

DEFERMENT FOR EXTENDED INTERNSHIP OR RESIDENCY TRAINING

According to a War Department release interns who complete their twelve month internship between April 1 and July 1, 1947 have been automatically deferred and will not be called to active duty until on or about July 1, 1947. Realizing the need of civilian hospitals for junior residents and/or interns and the desirability of continuing the deferment of as many officers as possible so that they might continue their training, the Surgeon General directed that a study be made to determine the maximum number of deferments that could be effected without too seriously jeopardizing the medical service of the Army.

As a result of this study, it has been determined that the following additional deferments will be authorized to enable officers to obtain residency or extended internship training: 1,200 are to be deferred an additional six months from July 1, 1947 to Jan. 1, 1948; 300 are to be deferred an additional twelve months from July 1, 1947 to July 1, 1948.

In order to place this program into effect, the following actions are necessary on the part of the intern and the hospital which will utilize his services as an intern or resident: The intern is to prepare a letter which the hospital of extended internship or residency will indorse. The latter is to be mailed to the Surgeon General's Office, Attention: Procurement, Separation and Reserve Section, Military Personnel Branch, Washington 25, D. C.

For the 1,200 six month deferments until Jan. 1, 1948, all hospitals will be given equal consideration. Since neither administrative machinery nor adequate hospital data are available in this office to enable the War Department to make equitable allocations of set numbers of persons to the various hospitals, deferments will be granted on the basis of approving those first received until the quota has been filled.

For the 300 twelve month deferments until July 1, 1948, priority will be given to university and teaching hospitals.

The deadline for the submission of requests for all deferments will be March 1, 1947. No request for additional deferment will be considered after this date.

DR. LEO ALEXANDER TO SERVE AS CONSULTANT AT THE NUREMBERG TRIALS

Dr. Leo Alexander of Boston is taking a leave of absence from his practice of psychiatry and neurology in order to comply with the request of the War Department for his service in Europe as a consultant to the Secretary of War. He will be at Nuremberg, Germany, in connection with the trial of major war criminals involved in crimes of a medical and scientific nature, perhaps from three to five months. A secretary who will remain in his office at 433 Marlborough Street, Boston, will be able to transmit any messages to him. Dr. Alexander as an officer in the recent war made extensive study of the criminal medical experiments in certain concentration camps in Germany.

PERSONALS

Lieut. Col. Margaret E. Aaron, who has just completed a tour of duty as deputy superintendent of the Army Nurse Corps, Office of the Surgeon General, will become chief nurse at the Army and Navy General Hospital, Hot Springs, Ark. Colonel Aaron, whose home town in Allentown, Pa., has been a member of the Army Nurse Corps for twenty-eight years.

ARMY AWARDS AND COMMENDATIONS

Brigadier General Joseph E. Bastion

The Distinguished Service Medal was recently awarded to Brig. Gen. Joseph E. Bastion, M. C., U. S. Army, commanding general of Percy Jones General Hospital at Battle Creek, Mich., for exceptionally meritorious and distinguished service from May 1943 to June 1946. Brigadier General Bastion was cited also for outstanding service as an administrator and for the high degree of medical care provided patients under his command. He graduated from Georgetown University School of Medicine in 1906 and entered the service May 5, 1910.

Colonel Idys M. Gage

The Legion of Merit was recently awarded to Col. Idys M. Gage of New Orleans. The citation stated that as surgical consultant, Fourth Service Command, from July 1943 to September 1945, he rendered meritorious service. In the face of unprecedented expansion of hospital facilities, he formulated and carried into effect the surgical program within the Fourth Service Command. This expansion resulted in the creation of many responsibilities for the training of subordinates and for the care of the sick. Dr. Gage graduated from Tulane University of Louisiana School of Medicine, New Orleans, in 1917 and entered the service July 15, 1942.

Colonel George P. Denny

The Legion of Merit was recently awarded to Col. George P. Denny of Boston. The citation stated that, as medical consultant, he was responsible for the high standard of medical service in the First Service Command hospitals from January 1944 to October 1945 and that his services were rendered with an unselfish devotion to the welfare of the sick and wounded of World War II. Dr. Denny graduated from Harvard Medical School in 1913 and entered the service June 1, 1942.

Colonel David Henry Poer

The Army Commendation Ribbon was recently awarded to Col. David Henry Poer, M. C., A. U. S., of Atlanta, Ga., for rendering exceptionally meritorious services as chief, surgical service, Newton D. Baker General Hospital, Martinsburg, W. Va., from Oct. 1, 1943 to Nov. 1, 1945. The citation stated that, during this period, Colonel Poer, by his professional skill, judgment, knowledge and unselfish devotion to duty, accomplished his assignment in an outstanding manner, reflecting great credit on his profession and the military service. Dr. Poer graduated from Emory University School of Medicine, Atlanta, Ga., in 1922 and entered the service Oct. 3, 1942.

Captain Lester E. Haushalter

The Bronze Star Medal was recently awarded to Capt. Lester E. Haushalter, M. C., A. U. S., of Milwaukee, for meritorious service in connection with military operations against the enemy in the Netherlands, Belgium and Germany from Nov. 18, 1944 to May 8, 1945. Throughout this period Captain Haushalter, a platoon leader of a station platoon, distinguished himself by his intrepid actions in the treatment and evacuation of wounded personnel under frequent enemy fire. On one occasion when a convoy in which he was riding was subjected to hostile fire, Captain Haushalter, though wounded, exposed himself to enemy fire and moved along the column to render medical aid to other casualties. The exemplary qualities and unswerving devotion to duty displayed by Captain Haushalter reflect high credit on himself and the armed forces of the United States. Captain Haushalter graduated from Marquette University School of Medicine, Milwaukee, in 1934 and entered the service May 18, 1944.

NAVY

MEDICAL ALLIED SCIENCE CORPS

Congressional legislation for a Medical Allied Science Corps is being requested by the Navy Department. Naval Reserve and temporary Regular officers in inactive as well as active status holding doctor's degrees in specialized fields related to the medical profession may apply for transfer to the regular Navy for service in this projected corps. Applications are desired from officers who hold a doctor's degree in one of the following fields: acarology, bacteriology, biology, chemistry, ontomology, epidemiology, genetics, malacology, nutrition, parasitology, physics, physiology, psychology, pathology, mammology, malariology, zoology, public health (industrial hygiene), virology and public health (medical statistics).

Officers on active duty who wish to be retained under this program until legislation authorizing the proposed new classification is passed or fails of enactment should submit applications to their commanding officers. Qualified officers on inactive duty should submit applications to the commandant of their home naval district and may then be ordered to active duty at their request if accepted. Age and physical requirements for the new corps are the same as those for the Medical, Dental and Hospital corps.

Applications will be accepted until a closing date is specified. Restrictions as to submission of requests within six months after release to inactive duty or resignation do not apply to this program, which will be conducted in general accordance with the current regulations governing transfer to the regular Navy.

CAPTAIN BROWN AT A. M. A. HEADQUARTERS

Dr. Ernest W. Brown is now on duty at the headquarters of the American Medical Association in Chicago as executive officer for the Committee on Scientific Development of the Council on Industrial Health and in matters pertaining to industrial medical education and toxicology. Captain Brown retired from the U. S. Navy in July 1946 after many years of service, including service on the faculty of the U. S. Naval Medical School in Washington as head of the Department of Environmental Hygiene and as medical director of the New York and Washington shipyards. During the war he was in the office of the Surgeon General of the Navy in charge of industrial hygiene research, chemical warfare medicine and submarine medicine and as liaison officer to the Committees on Industrial Medicine and Armored Vehicles of the National Research Council. Captain Brown graduated from George Washington University School of Medicine and attended Johns Hopkins School of Public Health in 1936-1937. He also has a Ph.D. from Yale University in biochemistry.

PERSONAL

Capt. T. J. Carter (MC), U.S.N., medical officer in command of Naval Research Unit No. 3 was invited to preside on one day of the first Public Health Congress held under the patronage of King Farouk in Cairo, Egypt, the week of November 4. Three of the papers presented at the congress were delivered by officers of U. S. Naval Medical Research Unit No. 3.

NAVY AWARDS AND COMMENDATIONS

Lieutenant (jg) John De Carlo Jr.

The Commendation Ribbon was recently awarded to Lieut. (jg) John De Carlo Jr., U.S.N.R., of Philadelphia for excellent service in the line of his profession as medical officer aboard a United States ship on April 2 and April 12, 1945 during the amphibious assault and capture of Okinawa. On each of these occasions according to the citation, when his ship went to the aid of another vessel which had been hit and left blazing by an enemy suicide plane, as medical officer of the fire and rescue party, he organized first aid groups and directed their participation in the rescue parties at great personal risk from exploding ammunition, gasoline and threatened attack by enemy planes. By his initiative, courage and devotion to duty he contributed materially to the success of this amphibious operation. His conduct and courage throughout were in keeping with the highest traditions of the United States Naval Service. Dr. De Carlo Jr. graduated from Jefferson Medical College in February 1944 and entered the service Oct. 10, 1944.

MISCELLANEOUS

CHANGES IN SURPLUS PROPERTY DISPOSAL PROCEDURES

Sweeping changes in surplus property disposal procedures affecting veterans have been announced by the War Assets Administration, after approval by a committee representing the five leading national veterans' organizations. The changes are:

1. Elimination of unavailable, unserviceable and no demand items from the "set aside list" of goods reserved for sale to veterans exclusively. This action reduced the list from 356 to about 111 items, which include the categories of motor vehicles, fractional horsepower motors, medical, dental and surgical supplies and office machinery, appliances and furniture.

2. Discontinuance of national allocation of such property among the six WAA zones and its offering on a where is, as is basis to cut costs and delays.

3. Acceptance of all certificates after December 9 on a first come, first served basis, regardless of chronological order of issuance.

4. Discontinuance on December 10 of certification for items on set aside list, because of the existing high proportion of certification for items available in the surplus inventory, and a drive to dispose of all of them by February 28, after which date no certificates for such items will be accepted.

In approving the changes, the Veterans Committee requested the director of the WAA Veterans Division to supply data to guide its consideration of the whole subject of surplus property disposal to veterans with a view to legislative recommendations to the next Congress. The committee believes that the changes now being made are necessary in interest of the veterans and the public.

SURPLUS MEDICAL EQUIPMENT ON SALE IN ST. LOUIS

About $8,000,000 worth of surplus medical equipment and supplies are being offered for sale at fixed prices at the St. Louis medical depot, including surgical, dental, professional and scientific instruments valued at about $3,250,000 apd x-ray equipment and supplies valued at about $2,500,000.

The equipment, already offered to federal agencies, will be offered to other priority claimants as follows: December 4, 5, 6, 9 and 10, veterans of World War II; December 10 and 11, Reconstruction Finance Corporation for small business; December 11 and 12, state and local governments; December 12 and 13, eligible nonprofit institutions. All other buyers may purchase from December 16 to January 10. This material will be on display at the depot, 412 South 12th Street, St. Louis, until 3:30 p. m. except Saturdays, Sundays and holidays. However, buyers may inspect only on dates assigned for purchase.

Veterans of World War II must be certified at the nearest WAA certifying office. Any individual business or group of small businesses interested in buying should apply to the nearest RFC office for qualification, and an RFC representative will buy for them at the depot. Nonprofit institutions must also be certified and may obtain necessary information by applying to their nearest WAA office. Minimum sales requirement is $25 for veterans and $100 for commercial buyers.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION AND PUBLIC HEALTH.)

ALABAMA

Charles Goss Appointed Professor of Anatomy.—Dr. Charles Mayo Goss, since 1938 head of the department of anatomy, University of Alabama School of Medicine, University, has been appointed professor and head of the department of anatomy, Louisiana State University School of Medicine, effective February 1. Dr. Goss graduated at Yale University School of Medicine, New Haven, Conn., in 1926.

COLORADO

Laboratory for Study of Toxicity of Various Heavy Metals Under Construction.—A new research laboratory is being constructed in the Division of Industrial Hygiene, University of Colorado School of Medicine, to carry on an investigation of toxicity of various heavy metals, particularly cadmium, and the maximum atmospheric and biologic concentrations which can be withstood without injury to the individual. According to the *Industrial Hygiene Newsletter*, the last real work on cadmium poisoning was done in 1932, results of which have shown that cadmium is stored in the spleen, liver, kidneys and bone. The most common exposure in industry is by inhalation of cadmium fumes and dust. A few fatal cases from cadmium fumes have been reported, but little is known concerning its action when it is administered in small doses over long periods. The industrial hygiene and heavy metal laboratories have been merged into one large, modern and well equipped workroom. Dr. Erving F. Geever, Denver, is the new medical director of the research project with medical students at the University of Colorado as his assistants. It is expected that the immediate phase of the work, cadmium toxicity, will require from two to five years to obtain complete information on all the problems involved, so in a short time the staff will begin the new research.

ILLINOIS

Chicago

The McArthur Lecture.—The twenty-third Lewis Linn McArthur Lecture of the Frank Billings Foundation will be delivered at the Palmer House on Friday evening, February 28, by Dr. Robert H. E. Elliott Jr., department of surgery, Columbia University College of Physicians and Surgeons and the Presbyterian Hospital, on "A Reevaluation of Splenectomy in Thrombocytopenic Purpura, Based on a Twenty-Seven Year Combined Clinic Follow-Up."

Special Society Elections.—At a meeting of the Chicago Tuberculosis Society on October 24 Dr. Hugo T. Cutrera was elected president, Dr. Jacob L. Marks vice president and Dr. George W. Holmes secretary-treasurer. Dr. J. Arthur Myers, Minneapolis, presented a paper at the meeting on "Early Tuberculosis."——Dr. Theodore B. Bernstein has been chosen president-elect of the Chicago Society of Allergy. Dr. William A. Mowry, Madison, Wis., is president and Dr. Edward G. Tatge, Evanston, secretary-treasurer.

Arthur Newitt New Tuberculosis Control Officer.—Dr. Arthur W. Newitt, senior surgeon, U. S. Public Health Service, has been selected to the new office of tuberculosis control officer of Chicago, newspapers reported December 7. Dr. Newitt's appointment was asked by Dr. Thomas Parran, Surgeon General, U. S. Public Health Service, on the condition that he be on leave from the service only long enough to establish the Chicago tuberculosis office. Dr. Newitt has been in public health service as tuberculosis control consultant since 1931 and in the last two years has made control surveys in Chicago, Cook County and New York City.

Research in Atmospheric Environment and Aviation Medicine.—Medical research in atmospheric environment and aviation medicine will be accelerated at the University of Illinois with the completion next summer of a new physical environment addition to the Research and Educational Hospitals at the Chicago Professional College Campus, Polk and Wood streets. Architects are now at work on the final drawings for the new addition, a one story structure with sufficient ceiling height to house a large pressure and temperature controlled chamber, a large psychrometric room and an acoustic laboratory. Cost of the research addition will be $250,000. An additional expenditure of $250,000 will be made for the major portion of the research equipment, which, because of its size, must be installed before the walls of the building are completed.

KANSAS

William Roth to Head Psychiatry Department.—Dr. William Roth, recently released from the U. S. Naval Reserve and formerly of Franklin, Tenn., has been appointed the first fulltime head of the department of psychiatry of the University of Kansas School of Medicine, Kansas City. The training facilities of the department will be enlarged. Dr. Edward T. Gibson, who is also in private practice, will continue as professor of neurology and psychiatry.

MARYLAND

Marcia Noyes Dies.—For the first time in the one hundred and sixteen years' existence of the Medical and Chirurgical Faculty of Maryland, Baltimore, a funeral was held from its quarters, November 27, with services for Miss Marcia C. Noyes, who died November 24 at Eudowood Sanatorium. Miss Noyes last April celebrated her fiftieth anniversary as secretary and librarian of the faculty; for years she lived in a penthouse atop the faculty building, 1211 Cathedral Street (THE JOURNAL, April 13, p. 1040).

MASSACHUSETTS

Eye Bank at Massachusetts Infirmary.—An eye bank is being opened at the Massachusetts Eye and Ear Infirmary, Boston, a branch of the Eye Bank for Sight Restoration, Inc. The bank is said to be the second such affiliated unit to be established in the country. In the procedure for persons donating their eyes after death for use in the cornea transplant operation, donors are asked not to make the gift a part of their wills, as a will is not effective immediately. Eyes must be enucleated by at least one hour after death. Because of such medical technicalities it is at this time necessary for the donor to die in a hospital. For this reason the donation is made beforehand on a special blank sent by the eye bank on request.

MICHIGAN

Dr. Coller Honored.—The Detroit Academy of Surgery designates its November 14 meeting "The Frederick A. Coller Meeting" to honor Dr. Coller, professor and chairman of the department of surgery, University of Michigan Medical School, Ann Arbor.

Annual Postgraduate Conference.—The first annual Michigan Postgraduate Clinical Conference will be held in Detroit March 11-14, 1947. The conference, featuring an all Michigan program of physicians and surgeons, will be sponsored by the Michigan State Medical Society with the cooperation of the University of Michigan Medical School, Ann Arbor, Wayne University College of Medicine, Detroit, Wayne County Medical Society, University of Michigan Department of Postgraduate Medicine and the Michigan Foundation for Medical and Health Education. Clinics in Detroit hospitals will be held Tuesday morning, followed by clinical presentations and lectures from Tuesday noon to Friday noon in the Book-Cadillac Hotel. Formal luncheons will be held on March 12-13, and two symposiums will feature Tuesday and Thursday evenings. The banquet is scheduled at the Book-Cadillac Hotel, Wednesday, March 12. The program will be available early in February. Dr. Grover C. Penberthy, Detroit, is chairman of the committee on arrangements and program, and Dr. L. Fernald Foster, Bay City, is secretary.

NEW YORK

Foster Child Care Study—An extensive survey of the problems surrounding the foster care of about 40,000 children in New York State was begun November 26 by the special committee of social welfare and relief of the Joint Legislative Committee on Interstate Cooperation. A preliminary report on the committee study will be presented to the 1947 legislature.

Street Named for Physician.—A recently completed street north of the Mary Imogene Bassett Hospital, Cooperstown, has been named Atwell Road in memory of the late Dr. Floyd J. Atwell. A memorial resolution was adopted by the village board of trustees recently. At his death Aug. 24,

1940 Dr. Atwell had been head of the obstetric department of Mary Imogene Bassett Hospital and health officer of the town of Otsego for more than twenty-five years. He had been a member of the staff of Bassett Hospital for eighteen years and had served for several years as physician of Cooperstown High School.

Director for New Health Department.—Dr. Frank E. Coughlin, formerly district state health officer, has been named full time health commissioner of Rensselaer County, effective November 1. Dr. J. C. Boland, formerly health officer of Troy, has been named deputy county health commissioner. Rensselaer was the first county in the state to adopt a plan for the organization of a county health district under public health legislation enacted this year. The city of Troy, in approving the plan, under which both city and rural health service will be administered, became the first city in the state to take advantage of the expanded health program. The appointment of Dr. Coughlin was one of the first official acts of the new board (THE JOURNAL, October 12, p. 342).

Interdepartmental Health Council.—On October 5 Governor Dewey announced the designation of an Interdepartmental Health Council to consist of the state commissioners of health, social welfare, mental hygiene and education. Hon. Lee B. Mailler, chairman of the New York State Health Preparedness Commission, will serve as an advisory member. Governor Dewey said that the need for the council is clear because public health is a field which touches many phases of community life. The functions of numerous state agencies in addition to the Department of Health are involved. At the recent session of the legislature a vastly expanded program for the integration of public health services, stimulated by the extension of state aid to the localities, particularly to the cities, was initiated. In addition, legislation was passed providing for an all out attack on tuberculosis which, it is contemplated, will require eventually a contribution by the state of $7,000,000 per annum in addition to monies heretofore expended on public health services by the state. The council will formulate and place in operation, through the departments, the necessary implementation for this program. The new council, in addition to coordinating activities already undertaken or to be started this year, will have the function of studying and recommending action on unmet or inadequately covered public health needs. These problems include school health, maternity and school hygiene, the need for expanding psychiatric clinic services, the relocation of physicians, industrial health and accident prevention.

New Research Unit for Mental Diseases.—Henry W. Nissen, Ph.D., since 1939 assistant director of the Yerkes Laboratories of Primate Biology, which are conducted by Yale and Harvard universities at Orange Park, Fla., has been appointed in charge of a newly created unit for biopsychologic research in mental diseases at Rockland State Hospital, Orangeburg. The new unit will be operated under the joint auspices of the Rockland State Hospital, the New York State Psychiatric Institute, New York, and the Council for Research in Social Sciences of Columbia University. Supervising the program of the unit is a scientific advisory committee which is a subcommittee of the Columbia University Council on Research in the Social Sciences. The chairman of the committee is Dr. Dolan D. C. Lewis, director of the New York State Psychiatric Institute; his associates are Karl S. Lashley, Ph.D., Sc.D., Orange Park, Fla., of Harvard University, Robert M. Yerkes, Ph.D., New Haven, Conn., Yale University, Henry E. Garrett, Ph.D., Columbia University, Carney Landis, Ph.D., New York, of the Psychiatric Institute staff, Dr. Russell E. Blaisdell, Orangeburg, N. Y., director, and Mr. Frederic Carnochan, member of the board of visitors, Rockland State Hospital. Elaine F. Kinder, Ph.D., senior psychologist at Rockland State Hospital, is secretary. An administrative committee consists of Dr. Frederick MacCurdy, New York, Dr. Lewis, Dr. Blaisdell and Mr. Carnochan, with Dr. Landis as secretary. The contemplated research will be geared to accomplish three purposes: to achieve meaningful analytic description of abnormal mental processes, to foster integrated studies of abnormal behavior, with appreciation of its more or less regular patterns and sequences and of the interactions of many forces which produce it, and to apply objective, naturalistic methods of experimentation such as are used in comparative psychology. The term "biopsychology" is applied to the project because its technics and approaches will be drawn from those already used with success in the fields of experimental biology and psychology. The work of the unit will be in large measure a cooperative effort of the investigators conducting the experiments and members of the hospital staff who are in charge of the clinical management of the patients.

New York City

Personal.—Dr. John J. Young, Brooklyn, a police department surgeon for sixteen years, has been promoted to the newly created position of deputy chief surgeon of the department. Dr. Engene H. Pool has been appointed acting medical director for the Medical and Surgical Relief Committee of America.

Site for Cancer Hospital Given to City.—Memorial Hospital for the Treatment of Cancer and Allied Diseases has deeded to the city of New York a site for the construction of a 300 bed hospital for the care of indigent patients with cancer. The city hospital, to be called the James Ewing Hospital in honor of a former director of Memorial Hospital, will cost $3,500,000. The site consists of land on the east side of First Avenue between East Sixty-Seventh and East Sixty-Eighth streets. It is part of the block between these two streets and York and First avenues, given to Memorial Hospital in 1936 by John D. Rockefeller Jr. to create an integrated center for the study and treatment of cancer. The hospital is to be under the supervision of the department of hospitals, which will cooperate closely with Memorial Hospital.

PENNSYLVANIA

Personal.—Dr. Harvey F. Smith, Harrisburg, was elected president of the Harrisburg Chamber of Commerce, October 14. He is said to be the first physician to hold the office in Harrisburg.——Dr. Elmer Hess, Erie, has been appointed a member of the Pennsylvania Board of Medical Education and Licensure, succeeding the late Dr. Paul R. Correll.

Philadelphia

Fraternity Lecture.—Dr. Charles Herbert Best, Toronto, Ont., professor and head of the department of physiology and director of the Banting-Best Department of Medical Research, University of Toronto Faculty of Medicine, Ontario, was the speaker at the annual lecture given under the auspices of the Alpha Omega Honorary Medical Society of the Jefferson Medical College of Philadelphia, November 7.

Chevalier Jackson Honored.—Dr. Chevalier Jackson, professor and head of the department of bronchoscopy, Temple University School of Medicine, was presented with a gold medal on behalf of students at the University of Buenos Aires for his work in training South American physicians. The presentation was made by Oscar Ivanissevich, Argentine ambassador to the United States, during a meeting of the Pan American Association of Philadelphia.

Centennial Meeting.—At the one hundredth anniversary banquet of the Northern Medical Association in the Bellevue Stratford Hotel, December 5, Richard H. Shryock, Ph.D., professor of history, University of Pennsylvania, will compare the outlook of the physician of 1946 with what it was in 1846. The Northern Medical Association, the second oldest medical society in Philadelphia (THE JOURNAL, February 23, p. 520), was formed Dec. 5, 1846 to serve the "outlying" sections to the north of the city, including the districts of Spring Garden, Frankford, Germantown and Northern Liberties. Dr. William Wayne Babcock, professor of surgery, Temple University School of Medicine, was toastmaster. Dr. Myer Solis-Cohen, president of the association, and Dr. Maurice S. Jacobs, chairman of the anniversary committee, were speakers. There was a historical exhibition of portraits, letters and minute books. A feature of the occasion was the presentation to those in attendance of a 144 page history of the association, containing portraits and biographies of its eighty-eight presidents as well as other historical articles.

UTAH

Laboratory for Metabolic Disorders.—A grant of $27,750 has been made to the University of Utah School of Medicine for the further support of a study of muscular dystrophy and other hereditary and degenerative disorders. This supplements the grant of $92,000 made last year by the U. S. Public Health Service, Research Grants Division, for the same purpose. With these funds it has been possible to establish at the university a Laboratory for the Study of Hereditary and Metabolic Disorders, of which Dr. Maxwell M. Wintrobe, Baltimore, professor and head of the department of medicine, is director. The activities of this laboratory will be divided among three divisions: the division of biochemistry and physiology, of which Francis Binkley, Ph.D., New York, and Emil L. Smith, Ph.D., are in charge, the division of genetics with Fayette B. Stephens, Ph.D., in charge and the clinical division. The chief of the clinical division, who will also act as assistant director of the study, has not yet been selected. A metabolic ward at the Salt Lake General Hospital forms part of the clinical

division. The staff of the metabolic ward includes Dr. Virginia Davenport, formerly of the Peter Bent Brigham Hospital, Boston. Dr. Binkley, who received his Ph.D. degree under Vincent du Vigneaud, Ph.D., New York, at Cornell, comes from the Rockefeller Institute for Medical Research, where he was associated with the late Dr. Charles L. Hoagland, New York, in studies on muscular dystrophy and on hepatic diseases. He is now associate research professor of biochemistry and medicine at the University of Utah School of Medicine. Dr. Emil L. Smith received his basic training with Dr. Selig Hecht, Ph.D., New York, Columbia University, Max Bergmann, Ph.D., New York, at the Rockefeller Institute and Dr. L. E. Vickery. He is now associate research professor of biochemistry and physiology at the University of Utah School of Medicine. The Laboratory for the Study of Hereditary and Metabolic Disorders is being equipped with the finest modern physical and chemical equipment.

GENERAL

Occupational Therapy Editor.—Dr. Sidney H. Licht, New York, will assume editorship of *Occupational Therapy and Rehabilitation* with volume 26 in February 1947. The journal will continue to issue one volume a year, consisting of six issues. Subscription will be $5, and the publishers are the Williams & Wilkins Company, Baltimore 2.

Special Society Elections.—Dr. Hal M. Davison, Atlanta, was chosen president-elect of the American College of Allergists at its recent meeting, and Dr. Leon Unger, Chicago, was installed as president. Other officers include Drs. George E. Rockwell, Milford, Ohio, and Willard S. Small, Pasadena, Calif., vice presidents, and Dr. Fred W. Wittich, Minneapolis, secretary-treasurer, reelected.

Group Therapy Association.—The fourth annual conference of the American Group Therapy Association will be held at the Hotel New Yorker, January 10-11. One session will be devoted to a report on "Parallel Group Treatment of Preschool Children and Their Mothers," one to "Research and Training in Group Therapy" and one to "Group Psychotherapy in Private Practice." Additional information may be obtained from the American Group Therapy Association, 228 East 19th Street, New York 3.

Narcotic Violations.—The United States bureau of narcotics announces the following:

Dr. John C. Hattaway, Edison, Ga., pleaded guilty in the U. S. District Court of Albany to violations of the Federal Narcotic Law, October 14, and was placed on probation for a period of three years.

Dr. John Peter Weber, Boise, Idaho, was convicted in the U. S. District court of Boise of the violation of the Federal Narcotic Law, October 21, and was sentenced to pay a fine of $3,750.

Dr. Boris Schleifer, Brooklyn, pleaded guilty in the U. S. District court, Brooklyn, to violation of the Federal Narcotic Law, April 7, and was sentenced to a term of two years.

Dr. Charles E. Moore, Carolina Beach, N. C., pleaded guilty in the U. S. District court at Wilmington, N. C., October 23, to violation of the federal Narcotic Law; his sentence of twelve months was suspended and he was placed on probation for a period of two years.

Dr. Luther A. Nye, Okemah, Okla., pleaded guilty in the U. S. District court of narcotics, Oklahoma, August 23, to violation of the Internal Revenue Code, and his sentence of five years was suspended and he was placed on probation for a similar period.

New Society for Clinical Research.—The Western Society of Clinical Research was organized at a meeting in San Francisco November 1-2. Dr. Gurth E. Carpenter, Beverly Hills, Calif., was chosen president, Dr. Mayo H. Soley, San Francisco, vice president and Dr. Helen E. Martin, Los Angeles, secretary. Among the papers presented at the first meeting were:

Dr. Lowell A. Rantz, San Francisco, Group A Hemolytic Streptococcus Antibody Production in Human Beings Following Immunization.

Dr. Henry K. Silver, San Francisco, Mechanism for the Development of Resistance to Streptomycin.

Dr. Robert F. Rushmer, Los Angeles, Relation of Experimentally Induced Internal Injuries to Lesions Produced in Aircraft Accidents.

Dr. Norman E. Freeman, San Francisco, Direct Measurement of Blood Pressure within Arterial Aneurysms and Arteriovenous Fistulas.

Dr. Blair V. Jager, Salt Lake City, Treatment of Rheumatoid Arthritis with Massive Doses of Salicylates, with Particular Reference to Modification of Plasma Protein Constituents During Therapy.

Dr. James F. Rinehart and L. D. Greenberg, Ph.D., San Francisco, Observations on Thiamine Metabolism.

Tropical Medicine Award Goes to Australian.—The American Foundation for Tropical Medicine presented the Richard Pearson Strong Medal, November 26, to Dr. Neil Hamilton Fairley, professor of tropical medicine, London School of Hygiene and Tropical Medicine. The presentation was made by Col. Strong, U. S. Army Medical Corps, retired, for whom the medal and award were named and who received them first in February, 1944. The award, together with a $500 cash honorarium, was established by the foundation through a gift by the Winthrop Chemical Company, Inc. It is struck in the white metal palladium, which is rarer than gold. The citation for the 1947 award declared that Dr. Fairley, as brigadier of the Australian Army Medical Corps, who directed the land headquarters medical research unit of the Australian army at Carns, Australia, obtained information on tropical diseases, notably malaria, scrub typhus and dengue fever that "made possible an earlier termination of the war against the Japanese Empire."

Fellowships in the Medical Sciences.—Fellowships in the Medical Sciences, similar to those which have been administered by the Medical Fellowship Board of the National Research Council since 1922, will again be available for the year 1947-1948. These fellowships, supported by grants from the Rockefeller Foundation to the National Research Council, are designed to provide opportunities for training and experience in research in all branches of medical science. They are open to citizens of the United States or Canada who possess an M.D. or a Ph.D. degree and are intended for recent graduates who are not yet professionally established. In addition to these fellowships the Medical Fellowship Board administers two groups of research fellowships, made available through a grant from the National Foundation for Infantile Paralysis, Inc. The first group, open to applicants who hold either the Ph.D. or the M.D. degree, is for the purpose of providing opportunities for special training and experience in the study of filtrable viruses. The second group, open only to graduates in medicine who have completed one or more years of hospital experience in clinical surgery and are planning a career in orthopedic surgery, is designed to provide opportunities for training and research in those basic medical sciences which will be of particular value in furthering progress in the field of orthopedic surgery. A series of fellowships in anesthesiology has been established through a grant from the American Society of Anesthesiologists. These fellowships are offered with a view to fostering a closer union between the clinical practice of anesthesiology and the fundamental disciplines on which anesthesia rests. Applicants must hold the M.D. degree and must have completed one or more years of hospital experience as intern or resident. The Medical Fellowship Board of the National Research Council has also under its jurisdiction a number of fellowships of senior grade in internal medicine (Welch fellowships), virus diseases, orthopedic surgery and pediatrics for individuals of proved research ability. Fellows will be appointed at a meeting of the Medical Fellowship Board early in March, 1947. Applications to receive consideration at this meeting must be filed on or before January 1. Appointments may begin on any date determined by the board. For further particulars concerning these fellowships, address the Secretary of the Medical Fellowship Board, National Research Council, 2101 Constitution Avenue, Washington 25, D. C.

Marriages

KENNETH FREDERICK EATHER, Eureka, Nev., to Miss Elizabeth Ann Worthington of Wyncote, Pa., July 27.

WILLIAM THOMAS PARROTT JR., Kinston, N. C., to Miss Fannie Mae Sellers at Waynesboro, Miss., June 19.

WILLIAM HERBERT HALL JR. to Miss Helen Mae Moore, both of Jamestown, N. Y., in New York June 15.

SEYMOUR S. ROGERS, New York, to Miss Dorothy Stewart of Henderson, N. C., in Greensboro, September 3.

HARRY PENN HARPER, Fort Snelling, Minn., to Miss Virginia Louise MacDonald in St. Paul recently.

ELWOOD OTHO HORNE, Worcester, Mass., to Miss Dorothy Louise Schock of Philadelphia August 3.

FREDERICK C. BRUSH, Shenandoah, Iowa, to Miss Florence Fillenwarth of Charles City, August 30.

HENRY BAILEY DICKENS JR. to Miss Barbara Baker Burgess, both of Fernandina, Fla., September 3.

CLAUDE C. COLEMAN JR. to Miss Jeanette Murdoch Kayhoe, both of Richmond, Va., September 7.

WILLIS H. HODGES JR., Columbus, Ohio, to Miss Rita Florence Schroeder of Cincinnati June 29.

MARK BAUM, Ashton, Idaho, to Miss Charleine Louise Chenoweth of Glendale, Calif., August 10.

JOHN ALDEN WOODCOCK, Bangor, Maine, to Miss Joan Carlin of Garden City, N. Y., June 15.

RUSSEL W. WELLER, Columbia, Pa., to Miss Carol Bahler of Upper Darby in August.

RAYMOND N. BROWN to Miss Joan Sayers, both of Washington, D. C., June 22.

Deaths

Roland Chatham Connor ✠ New York; born in Madison County, Texas, Oct. 8, 1876; University of Texas School of Medicine, Galveston, 1904; delegate to the American Medical Association from the Medical Association of the Isthmian Canal Zone in 1925; life member and past president of the Canal Zone Medical Association; member of the American Academy of Tropical Medicine, American Society of Tropical Medicine and New York Society of Tropical Medicine and a fellow of the Royal Society of Tropical Medicine and Hygiene; interned at the John Sealy Hospital; from 1907 to 1911 physician for the Panama Canal at Ancon, where he was for many years chief of the medical clinic at Ancon Hospital; district physician at Cristobal, Canal Zone, from 1911 to 1914; assistant general manager of the medical department of the United Fruit Company in New York from 1925 to 1931, when he was appointed medical director, serving until his retirement on Nov. 1, 1943; died at the Mayo Clinic, Rochester, Minn., October 2, aged 69.

Judson Davie Dowling ✠ Birmingham, Ala.; born in Daleville, Ala., April 30, 1880; Birmingham Medical College, 1911; interned at the Hillman Hospital; served as resident at the Boston Lying-In Hospital and the Sloan Hospital for Women in New York; member of the House of Delegates of the American Medical Association in 1919, 1921 and 1922; on the faculty of his alma mater from 1914 to 1917; public health officer of Birmingham and Jefferson County from 1917 to 1941; named regional director of public health services for the office of civilian defense early in World War II and later as senior surgeon of the United States Public Health Service Reserve was assigned to Arizona and New Mexico; formerly superintendent of the Eastern State Hospital in Knoxville, Tenn.; received the Birmingham *News* award as the city's "outstanding citizen" in 1923; died in Mount Olive, N. C., November 1, aged 66, of coronary thrombosis.

Florus Fremont Lawrence, Mount Vernon, Ohio; Columbus Medical College, 1885; born in Wadsworth, Ohio, March 16, 1863; served as professor of surgery, anatomy and clinical surgery at the old Ohio Medical University, clinical lecturer in abdominal pelvic surgery at Starling Medical College, and in later years clinical lecturer on surgery at Ohio State University College of Medicine; member of the American Medical Association and the American Academy of Political and Social Science; past president of the Central Ohio Medical Society, predecessor to the present Columbus Academy of Medicine, serving as president of the latter organization in 1905; served as vice president of the Ohio State Medical Association; served during the Spanish-American War and World War I; for many years on the staffs of the Lawrence, McKinley and White Cross hospitals in Columbus; died October 26, aged 83, of carcinoma of the stomach.

Gordon Frank McKim ✠ Cincinnati; Medical College of Ohio, Cincinnati, 1903; served as professor of surgery at the University of Cincinnati College of Medicine; specialist certified by the American Board of Urology; member of the American Urological Association and past president of the North Central Branch; member of the American Association of Genito-Urinary Surgeons and the International Society for Urology; past president and vice president of the Academy of Medicine of Cincinnati; fellow of the American College of Surgeons; an officer during World War I; recipient of the honorary degree of doctor of laws from both Hanover College and Miami University; director of urologic service at Cincinnati General Hospital; affiliated with the Christ Hospital, where he died September 3, aged 67, of multiple myeloma.

Lester Lyman Strong ✠ Cleveland; Ohio State University College of Medicine, Columbus, 1926; born in Niles, Ohio, Jan. 30, 1895; member of the Academy of Medicine of Cleveland and the Cleveland Medical Library; served in the U. S. Army in France as a laboratory worker in a base hospital during World War I; formerly an associate staff member of the Huron Road Hospital in East Cleveland; in 1944 gave up practice to devote himself to research on leukemia at the University Hospitals, where the Lester L. Strong Memorial Fund for Leukemic Research has been established, a disease with which he was afflicted and from which he died at the Lakeside Hospital November 4, aged 51.

Frank Hermance Lasher ✠ Brooklyn; Columbia University College of Physicians and Surgeons, New York, 1906; specialist certified by the American Board of Otolaryngology; fellow of the American College of Surgeons; served as director of the otorhinolaryngology department, Cumberland Hospital, surgeon, ear, nose and throat department, Brooklyn Eye and Ear Hospital, surgeon, otolaryngologic department, Brooklyn Hospital, consultant, Rockaway Beach (N. Y.) Hospital and Dispensary and on the staff of the South Nassau Communities Hospital in Rockville Centre; on the courtesy staff of the Prospect Heights Hospital; died in October, aged 63.

Grover Taylor Applegate, New Brunswick, N. J.; the Hahnemann Medical College and Hospital, Chicago, 1883; born in Red Bank, N. J., April 5, 1859; past president of the New Jersey State Homeopathic Medical Society; member of the medical advisory board of the New Brunswick Selective Service System during World War I; past president of the city's board of water commissioners; served two terms as member of the board of education; past president of the Providence Building & Loan Association of New Brunswick; formerly director of the local Y. M. C. A.; died in the Middlesex General Hospital November 4, aged 87.

Simons Ravenel Lucas ✠ Florence, S. C.; Medical College of South Carolina, Charleston, 1910; for many years a member of the board of trustees of the University of South Carolina; served as a member of the board of trustees of St. Mary's School and Junior College for Girls in Raleigh, N. C.; fellow of the American College of Surgeons; specialist certified by the American Board of Ophthalmology; ophthalmologist to the McLeod Infirmary; served as examiner for the Selective Service Board during World War II; charter member and past president of the Rotary Club; died in Columbia October 5, aged 61, of coronary occlusion.

Oliver Dustin Barker ✠ Parkersburg, W. Va.; Medical College of Ohio, Cincinnati, 1904; specialist certified by the American Board of Urology; member of the American Urological Association and the Academy of Medicine of Parkersburg; fellow of the American College of Surgeons; during World War I served as a captain in the medical corps of the U. S. Army, assigned to an army hospital in Belgium, serving as division urologst; county coroner; on the staffs of the Camden-Clark Memorial Hospital and St. Joseph's Hospital, where he died November 4, aged 64, of cirrhosis of the liver.

Charles Gordon Abell ✠ Enosburg Falls, Vt.; University of Vermont College of Medicine, Burlington, 1903; for many years chairman of the Vermont Department of Public Health; delegate to the American Medical Association from Vermont in 1935 and 1936; in 1929 elected to the state house of representatives; served as village trustee, health officer, school director and president of the Enosburg Falls Savings Bank & Trust Company; died September 28, aged 68, of coronary embolism.

John Sellers Agar, Little Rock, Ark.; University of Arkansas School of Medicine, Little Rock, 1934; member of the American Medical Association; interned at the Jewish Hospital in St. Louis, where he served a residency at the Barnes Hospital; during World War II served with the naval medical corps and participated in the Tarawa and Saipan campaigns with the Second Marine Corps Division, receiving a commendation for bravery in action; died October 15, aged 37, of coronary occlusion.

William Hugh Anderson ✠ Seattle; University of Nebraska College of Medicine, Omaha, 1905; formerly superintendent of the King County Hospital; on the staffs of the Providence and Doctors hospitals; physician for Spanish war veterans; died October 23, aged 69, of heart disease.

Charles Francis Beeson ✠ Roswell, N. M.; Miami Medical College, Cincinnati, 1898; also a graduate in pharmacy; past president of the New Mexico Medical Society; affiliated with St. Mary's Hospital, where he died September 29, aged 78, of pneumonia.

Daniel Webster Bell, Otwell, Ind.; Chicago Homeopathic Medical College, 1904; member of the American Medical Association; served during World War I; major, medical reserve corps, U. S. Army, not on active duty; county coroner for two terms; died in the Daviess County Hospital in Washington October 12, aged 68, of cardiovascular renal disease.

Darwin E. Bell, Gracey, Ky.; Vanderbilt University School of Medicine, Nashville, 1882; died in the City View Sanitarium, Nashville, October 9, aged 84.

Robert McReynolds Biddle, Pottsville, Pa.; Jefferson Medical College of Philadelphia, 1915; medical examiner for the city public schools; served with a medical unit on the Mexican border and during World War I; on the staff of the Good Samaritan Hospital; member of the local board of health; died October 27, aged 56.

Augustus E. Bieser, Hartsdale, N. Y.; College of Physicians and Surgeons, medical department of Columbia College, New York, 1891; member of the American Medical Association; one of the founders of the Lutheran Hospital in Manhattan; died October 24, aged 77, of coronary thrombosis.

James A. Bisgard ✠ Harlan, Iowa; Omaha Medical College, 1894; past president of the Shelby County Medical Society; life member of the Iowa State Medical Society; died October 9, aged 77, of arteriosclerosis.

Ralph Franklin Blecker ✠ Fresno, Calif.; University of Nebraska College of Medicine, Omaha, 1927; served as a major in the medical corps, Army of the United States, during World War II; interned at St. Catherine's Hospital in Omaha and the Franklin Hospital in San Francisco; died August 14, aged 42.

Grace S. Linforth Boalt, San Jose, Calif.; Medical Department of the University of California, San Francisco, 1898; died in September, aged 75.

Edmund Raymond Bondy ✠ Cleveland Heights, Ohio; University of Wooster Medical Department, Cleveland, 1898; served during World War I; physician in Cleveland for the Actor's Equity Association and the Cleveland Boxing Commission; died in St. Vincent Charity Hospital, Cleveland, October 11, aged 70, of coronary disease.

Edmond Bonnot ✠ St. Louis; St. Louis University School of Medicine, 1908; at one time on the faculty of his alma mater; died in the Barnes Hospital October 13, aged 70, of acute cardiac failure.

Eugene Herbert Boon, Oak Ridge, Tenn.; University of Nashville Medical Department, 1910; served overseas during World War I; affiliated with the medical department of the Tennessee Eastman Corporation; died in the Oak Ridge Hospital October 16, aged 62, of coronary occlusion.

Lon Hendrixson Boone, Wallins Creek, Ky.; Lincoln Memorial University Medical Department, Knoxville, 1911; died October 8, aged 59, of tuberculosis.

Nathan J. Braverman ✠ Duluth, Minn.; University of Minnesota Medical School, Minneapolis, 1927; served during World War II; on the staffs of the St. Mary's Hospital, Miller Hospital and St. Luke's Hospital, where he died October 16, aged 44, of cerebral hemorrhage and hypertension.

Joseph Edward Burns ✠ Buffalo; University of Buffalo School of Medicine, 1924; served during World War I; for many years on the faculty of his alma mater; on the staffs of the Buffalo General, Emergency and Meyer Memorial hospitals; died in Kenmore October 20, aged 49, of coronary thrombosis.

William Preston Burton ✠ Covington, Va.; Jefferson Medical College of Philadelphia, 1923; medical director, superintendent and owner of the Covington General Hospital; died near Christiansburg October 20, aged 48, of injuries received in an airplane crash.

William Clark Calvert, Union, Miss.; Memphis (Tenn.) Hospital Medical College, 1903; died September 29, aged 80.

Nicola Capitolo, Philadelphia; Regia Università di Napoli Facoltà di Medicina e Chirurgia, Italy, 1904; died October 14, aged 72.

Ulysses S. Carden, La Follette, Tenn.; Tennessee Medical College, Knoxville, 1900; formerly mayor; died October 22, aged 73, of chronic nephritis.

James Quarles Chambers, Kansas City, Mo.; University of Pennsylvania Department of Medicine, Philadelphia, 1899; member of the American Medical Association; past president of the Jackson County Medical Society; honorary member of the Missouri State Medical Association; affiliated with the St. Luke's, Research and St. Mary's hospitals; died in the Kansas City General Hospital September 25, aged 76, of hemopneumothorax, as the result of fractured ribs received when he was struck by a street car.

Florence P. Simms Chapman ✠ Topeka, Kan.; Ohio Medical University, Columbus, 1903; for many years affiliated with the Topeka State Hospital; died September 9, aged 68, of coronary thrombosis.

William Albert Clark III, Springfield, Ohio; Ohio State University College of Medicine, Columbus, 1936; member of the American Medical Association; served as superintendent of the Clark County Tuberculosis Sanatorium; member of the staff of the Springfield City Hospital; died September 25, aged 37, of acute dilatation of the heart.

Michael P. Clouse, Somerset, Ohio; Starling Medical College, Columbus, 1901; member of the American Medical Association; on the staffs of the Good Samaritan and Bethesda hospitals in Zanesville and the Mercy Hospital in Columbus; died October 1, aged 75, of cerebral hemorrhage.

Webb Conn, Brunswick, Ga.; Atlanta College of Physicians and Surgeons, 1902; member of the American Medical Association; served as health commissioner for Glynn County; died August 21, aged 67, of coronary thrombosis.

Eugene Rollin Corson, Savannah, Ga.; Hahnemann Medical College of Philadelphia, 1877; Southern Medical College, Atlanta, 1894; member of the American Medical Association; honorary member of the Medical Association of Georgia; died June 10, age 90, of carcinoma.

Frank W. Daykin, East Cleveland; Western Reserve University Medical Department, Cleveland, 1879; died October 2, aged 87, of senility.

Lela H. DeVasher, Muskogee, Okla.; Southwestern Homeopathic Medical College and Hospital, Louisville, 1904; died in the Baptist Hospital October 1, aged 86, of coronary occlusion.

William Joseph Dwyer ✠ Boston; Tufts College Medical School, Boston, 1905; served on the Mexican border and later as a medical officer during World War I; formerly senior prison physician, Massachusetts State Prison; rating specialist for the Veterans Administration; died September 30, aged 62, of carcinoma of the lung.

William Forrest Elliott, Lincolnton, N. C.; Medico-Chirurgical College of Philadelphia, 1916; member of the American Medical Association; fellow of the American College of Surgeons; affiliated with the Gordon Crowell Memorial Hospital; died September 26, aged 60, of coronary thrombosis.

Alfred Fieldbrave, Christopher, Ill.; Bennett Medical College, Chicago, 1912; died in the Herrin (Ill.) Hospital October 6, aged 69.

Austin Alfred Foote, Elma, Wash.; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1909; member of the American Medical Association; died September 30, aged 61.

James McFadden Gaston Jr., Deland, Fla.; Southern Medical College, Atlanta, 1893; retired Southern Baptist Medical Missionary, serving more than thirty years in northern China; died September 28, aged 78, of thrombosis and pulmonary embolism.

Harold Kenneth Gibson, Chicago; Northwestern University Medical School, Chicago, 1898; past president and secretary of the Chicago Gynecological Society; on the staff of St. Luke's Hospital, where he died October 24, aged 70, of bronchopneumonia.

Arthur Louis Gignac ✠ Detroit; Detroit College of Medicine and Surgery, 1914; on the staff of St. Mary's Hospital; died in the Evangelical Deaconess Hospital October 8, aged 59, of coronary occlusion.

Abraham Lincoln Goodman ✠ Forest Hills, N. Y.; Columbia University College of Physicians and Surgeons, New York, 1895; also a graduate in pharmacy; formerly on the faculty of the New York Polyclinic Medical School and Hospital; during World War II received the Selective Service Medal for his service with the medical review board of selective service in Manhattan; in various capacities served on the staff of the Lenox Hill Hospital; at one time deputy chief honorary surgeon of the police department; died October 10, aged 73.

Harry H. Griffin, Columbia, S. C.; Medical College of the State of South Carolina, Charleston, 1902; also a graduate in pharmacy; honorary member of the South Carolina Medical Association; member of the American Medical Association; on the staff of the Providence Hospital, where he died October 9, aged 70, of coronary thrombosis.

Byron G. S. Gronlund, Chicago; the Hahnemann Medical College and Hospital, Chicago, 1912; medical examiner for the Prudential Life Insurance Company; died in the South Shore Hospital October 27, aged 57, of carcinoma of the head of the pancreas.

Edward James Gunning ✠ St. Petersburg, Fla.; George Washington University School of Medicine, Washington, D. C., 1905; died September 24, aged 71, of acute myocardial failure and arteriosclerosis.

Hiram B. Hawley ✠ Syracuse, N. Y.; Syracuse University College of Medicine, 1893; on the staff of the Crouse-Irving Hospital, where he died October 17, aged 82, of cerebral thrombosis.

William Bonde Holland, Verona, Miss.; Memphis (Tenn.) Hospital Medical College, 1893; died September 26, aged 74.

Paul Foster Hunt ✠ Kansas City, Mo.; University of Kansas School of Medicine, Kansas City, Kan., 1926; fellow of the American College of Surgeons; interned at the Bell Memorial Hospital in Kansas City, Kan.; on the staff of the Research Hospital; died in the Central Dispensary and Emergency Hospital, Washington, D. C., in October, aged 49, of injuries received in an automobile accident.

Owen A. Hunter, Longview, Texas; Marion-Sims College of Medicine, St. Louis, 1898; died October 2, aged 69, of cerebral hemorrhage.

George F. Hutchinson, Marietta, Ohio (licensed in Ohio in 1896); died in the Marietta Memorial Hospital October 15, aged 86.

Arthur Wing Johnson ✦ Mechanicville, N. Y.; Albany (N. Y.) Medical College, 1887; an Affiliate Fellow of the American Medical Association; past president and vice president of the Saratoga County Medical Society; for many years county coroner; died October 9, aged 82, of chronic myocarditis.

Trimble Clarence Johnson ✦ Atlanta, Ga.; Emory University School of Medicine, Atlanta, 1918; fellow of the American College of Physicians; served during World War I; on the staffs of the Emory University Hospital and the Crawford W. Long Memorial Hospital; died October 6, aged 51, of pulmonary tuberculosis.

Constantine Peter Kalionzes, Los Angeles; National University of Athens School of Medicine, Greece, 1900; member of the American Medical Association; died October 15, aged 67.

William Vincent Kane, Lynn, Mass.; Tufts College Medical School, Boston, 1915; member of the New England Pediatric Society and the American Medical Association; on the staff of the Lynn Hospital; served during World War I; died October 11, aged 54, of heart disease.

Daniel Webster King, Wichita Falls, Texas; University of West Tennessee College of Medicine and Surgery, Memphis, 1915; died in a hospital at Fort Worth in September, aged 60.

Rae Byrd Leavell, Bastrop, La.; Medical Department of Tulane University of Louisiana, New Orleans, 1899; member of the American Medical Association; for many years county coroner; died October 15, aged 69.

Charles E. Leedy, Wenatchee, Wash.; Detroit College of Medicine, 1897; died in the Deaconess Hospital August 5, aged 76, of Parkinson's disease.

Irving Elliott Lloyd, Mount Vernon, Wash.; University of Oregon Medical School, Portland, 1919; member of the American Medical Association; affiliated with the Indian Service; served during World War I; died October 5, aged 53.

John Charles McCann, Brighton, Colo.; Denver and Gross College of Medicine, Denver, 1908; died September 30, aged 66.

William Ambrose Nealon, Pittsburgh; University of Pennsylvania Department of Medicine, Philadelphia, 1902; member of the American Medical Association; fellow of the American College of Surgeons; on the staff of St. Francis Hospital; died October 10, aged 70, of carcinoma.

William Charles Ocasek, Berwyn, Ill.; University of Illinois College of Medicine, Chicago, 1935; member of the American Medical Association; formerly on the faculty of his alma mater as assistant and instructor in medicine; served on the staffs of the West Suburban Hospital in Oak Park, Ill., and the Grant Hospital in Chicago; died November 11, aged 39, of coronary occlusion.

William Isaac Parker, Lamont, Iowa; the Hahnemann Medical College and Hospital, Chicago, 1891; city health officer; on the staff of the Peoples Hospital; died September 15, aged 82, of carcinoma of the bladder and prostate.

James Francis Peattie, San Francisco; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1912; for many years chief surgeon for the Tide Water Associated Oil Company; member of the staff of St. Francis Hospital; died October 11, aged 62, of coronary occlusion.

Eugene Curtis Peck ✦ Leonardtown, Md.; Harvard Medical School, Boston, 1919; diplomate of the National Board of Medical Examiners; county health officer; at one time instructor at St. John's University Medical School in Shanghai, China, where he was a medical missionary; died October 9 aged 51, of chronic myocarditis.

Willy Picard, Berkeley, Calif.; Albert-Ludwigs Universität Medizinische Fakultät, Freiburg, Baden, Germany, 1917; interned at the Mount Zion Hospital in San Francisco; died September 30, aged 59.

Albert Stanley Pike, Rochester, N. Y.; University of the City of New York Medical Department, 1896; died in the Genesee Hospital October 3, aged 77, of a cerebral concussion incurred in a fall and coronary thrombosis.

Corwin Richie Price, Geneva, Ind.; Fort Wayne (Ind.) College of Medicine, 1903; served during World War I; died October 1, aged 69, of cerebral hemorrhage.

Walter Hall Pulsifer ✦ Whitman, Mass.; Tufts College Medical School, Boston, 1908; died September 26, aged 62, of coronary thrombosis.

James Harvey Raymond, Honolulu, Hawaii; Rush Medical College, Chicago, 1893; on the staff of the Queen's Hospital; died August 8, aged 79, of cerebral hemorrhage.

Frank Julius Resch ✦ Chicago; Loyola University School of Medicine, Chicago, 1918; on the staff of the Grant Hospital; died October 12, aged 58, of coronary thrombosis.

Frank Eugene Ryan ✦ McLean, N. Y.; Syracuse University College of Medicine, 1914; health officer for the town of Groton and health inspector for the Virgil and McLean schools; on the staff of the Cortland County Hospital in Cortland; died October 19, aged 57, of cerebral hemorrhage.

Ernest S. Sampson, North Syracuse, N. Y.; Albany (N. Y.) Medical College, 1882; died September 27, aged 90, of arteriosclerotic heart disease.

Alfred Joseph Nelson Shiel ✦ New York; University of Colorado School of Medicine, Denver, 1926; served in France with the medical corps of the U. S. Army during World War I; for many years affiliated with the Bellevue Hospital; died October 1, aged 52, of coronary disease.

William Evert Smith, San Francisco; University of Oregon Medical School, Portland, 1907; served in the U. S. Navy during World War I; died October 20, aged 71, of cerebral hemorrhage.

Raymond John Sprowl ✦ Spokane, Wash.; University of Pennsylvania School of Medicine, Philadelphia, 1913; member of the Pacific Coast Oto-Ophthalmological Society; served as a major overseas during World War I; member of the staff of the Deaconess Hospital; died October 30, aged 58, of coronary occlusion.

Peter Strofs, Chicago; University of Illinois College of Medicine, Chicago, 1931; member of the American Medical Association; on the courtesy staff of the Mother Cabrini Hospital; affiliated with the Veterans Administration Facility, Hines, Ill.; died in the Michael Reese Hospital November 5, aged 43, of chronic myelogenous leukemia.

John Martin Taylor ✦ Boise, Idaho; University of Pennsylvania Department of Medicine, Philadelphia, 1900; fellow of the American College of Surgeons; honorary member of the Idaho State Medical Association; member of the staff of St. Luke's Hospital; died October 22, aged 85, of coronary disease and pneumonia.

George Bernard Topmoeller ✦ Cincinnati; University of Cincinnati College of Medicine, 1910; specialist certified by the American Board of Internal Medicine; fellow of the American College of Physicians; chief of the medical staffs of St. Mary Hospital and the Good Samaritan Hospital, where he died October 3, aged 59, of gastric ulcer.

Chauncey Vibbard Bunnell Vedder, Philadelphia; Hahnemann Medical College and Hospital of Philadelphia, 1911; died September 9, aged 61, of coronary occlusion.

Homer Wakefield, New York; Bellevue Hospital Medical College, New York, 1891; died September 1, aged 81.

George Albert Weirick ✦ Elgin, Ill.; Iowa Medical College, Eclectic, Des Moines, 1885; died October 2, aged 84, of myocarditis.

Howard Franklin Wertz, Jackson, Mich.; Keokuk (Iowa) Medical College, College of Physicians and Surgeons, 1901; died in the Mercy Hospital October 1, aged 70, of cerebral hemorrhage.

Walter Puryear Whitted, Gallup, N. M.; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1919; served during World War I; special physician at large for the Indian Service and for many years affiliated with the Navajo Medical Center Hospital and Sanatorium at Fort Defiance, Ariz.; on the staff of St. Mary's Hospital; found dead September 21, aged 53.

Georgetta S. Williams, Marietta, Ohio; Cincinnati College of Medicine and Surgery, 1900; died October 2, aged 84, of cerebral thrombosis.

Alice Stuart Woodman, Boston; Boston University School of Medicine, 1903; served as associate professor of histology and embryology at his alma mater, where she had been a member of the faculty for thirty-eight years; member of the American Association of Anatomists; died September 25, aged 66, of pneumonia.

Henry Herbert Workman, Woodruff, S. C.; Medical College of South Carolina, Charleston, 1905; member of the American Medical Association; died in Charleston October 10, aged 66, of cirrhosis of the liver.

Cletus Kenna Ziegler, Milwaukee; Marquette University School of Medicine, Milwaukee, 1925; died in St. Joseph's Hospital September 13, aged 46, of incarcerated hernia.

Foreign Letters

LONDON

(From Our Regular Correspondent)

Nov. 20, 1946.

Proposals of Royal College of Physicians for a Child Health Service

Important proposals for a child health service are made by a committee of the Royal College of Physicians consisting of experts in pediatrics, obstetrics, public health, general medicine and psychiatry, which has just issued its report. While stating that primary responsibility for the health of children must rest with the parents, the health services are regarded as agencies helping them. The general plan of the proposed service is based on close cooperation between the preventive services provided by the local health authorities and the clinical services provided by practitioners and hospitals. The present policy of having two groups of personnel, one engaged in preventive and the other in curative work, is good neither for the child nor for the doctor. A long-term policy should aim at making the general practitioner primarily responsible for the medical care of the child in both the prevention and the cure of disease, since he is the one best fitted to give this service in the home. It is recognized that the medical curriculum does not equip the doctor with sufficient education in pediatrics to specialize in the preventive work of the child welfare and school health service. This can be remedied by postgraduate instruction, which should provide three types of doctors for the preventive work: (1) interested general practitioners with postgraduate experience already, (2) hospital physicians giving some of their time to preventive work in clinics, nurseries and schools and (3) whole time medical officers employed by local authorities, the bulk of whose work will be preventive but who will also be attached to a hospital, to spend, it is suggested, one fifth of their time in curative work. These last are designated as "child health officers" and they form an important element in the proposed scheme.

BEDS FOR CHILDREN

It is estimated that in hospitals, excluding fever hospitals, one seventh of the beds should be for children. The figure required for acute diseases is put at 23,000. For chronic diseases there are a large number, such as orthopedic hospitals, rheumatic heart homes and special residential schools for the blind, deaf, mentally defective and epileptic. The great mass of beds for children are not under the care of physicians trained for children's work. Until more can be trained, the child health medical officers must be brought in. Important recommendations are made for hospital services. All maternity hospitals and departments should have pediatricians on the staff with full responsibility for the care of the newborn. Hospitals for acute diseases should be situated so as to be easily accessible to parents, which means in cities. But hospitals for long-stay patients should be outside cities. Every children's hospital should have an infectious diseases section and every fever hospital should, as far as possible, form part of a general children's hospital.

HEALTH VISITORS

In the past the health visitor has not received sufficient training for work among children. In future, with her work essentially concerned first with antepartum care of mothers and then with supervision of the child to the end of the school age, she should be trained in the course for sick children's nurses and afterward in the first part of the midwife's training, proceeding then to the health visitor's curriculum. Her activities should not be confined to preventive work, for she should give treatment for minor ailments in the health center and also visit children ill at home under the general practitioner. The new academic interest in child health, resulting in university departments of child health, should be the main source of guidance for regional services, with an "Institute of Child Health" as the headquarters for the teaching of preventive pediatrics.

Protein Metabolism in Disease

The presidential address to the Section of Experimental Medicine and Therapeutics of the Royal Society of Medicine was delivered by Professor H. P. Himsworth, who discussed protein metabolism in relation to disease. He said that, although there were only twenty-two amino acids for the construction of all varieties of protein, no two proteins were alike. There were subtle differences between the proteins of the same organs from different animals. In part the tissue differences could be related to differences in the amino acid composition, as also could species difference, such as between human milk and cow's milk, but most species differences were far too subtle for chemical analysis and called for immunologic tests. By altering the amount of dietary the amount of protein might be altered, but not apparently the composition of tissue proteins. Imperfect and unusual proteins seemed never to be produced in the body. Yet the body proteins, far from being stable structures, are in a state of rapid change. Individual amino acids are continually being broken down and the fragments are being built into different or similar amino acids. Yet the tissues retained their characteristic structure, showing that there was a dynamic equilibrium.

Among the conditions which produce excessive utilization of protein are fever and injury. The increased metabolism in fever has been loosely termed toxic destruction, but it occurs after simple injury when there is no question of an extrinsic toxin gaining access to the body. The process seems to be a reaction of the body itself to trauma. From twelve to twenty-four hours after a simple fracture, the nitrogen excretion in the urine begins to rise. It soon reaches a maximum and then slowly returns to normal. It has been suggested that large amounts of amino acid are required for the healing of the injury. Implicit in that suggestion is the idea that certain key amino acids are required and are produced by the breaking down of body protein, and that other amino acids not required by the tissues are rapidly burnt off, accounting for the increased nitrogen excretion. The practical lesson is to remedy any nitrogen deficiency before operation. In acute illness protein intake must be maintained at a reasonable level, but there is no point in pushing it to excess. As soon as the illness begins to improve, protein should be pushed, because this apparently shortens the period of negative nitrogen balance. Those who have followed high protein regimens during convalescence have been impressed by the increased well-being of the patients. As to protein metabolism in relation to liver injury, it seems clear that protein deficiency will lead to liver necrosis. Necrosis produced by lack of cystine is what is called acute yellow atrophy of the liver, and survivors go on to a fibrotic condition of the liver.

A Traveling Professorship

A prominent New Zealand industrialist has made a gift to the Royal College of Surgeons for the endowment of a commonwealth traveling professorship. The endowment will provide about $10,000 a year and will be known as "a gift from a New Zealand family." A commonwealth professor will be appointed each year. Generally he will be a prominent physician, surgeon or scientific worker resident in Britain, Australia or New Zealand. The appointing authorities will also be authorized to elect a distinguished teacher from one of the other dominions. The professor will be required to travel to Britain, Australia and New Zealand or any other dominion of the commonwealth for the purpose of assisting in the advancement of medical science either by lecturing, teaching or engaging in research. The president of the Royal College of Surgeons states that it is hoped that the institution of this professorship will lead to the establishment of closer links between scientific workers in the dominions and the older seats of learning and centers of research.

POSTGRADUATE COURSES FOR VETERAN AND CIVILIAN PHYSICIANS

Compiled by the Council on Medical Education and Hospitals for Period Jan. 1, 1947 to July 15, 1947

(Concluded from page 946)

Medical schools, hospitals, state medical societies and other medical educational institutions and organizations are providing the Council with a growing body of information on courses designed primarily to meet the needs of returning medical officers. These have been incorporated into the lists on these pages. They are not specifically designated for veterans, since most if not all of them may also be open to interested civilian physicians. Furthermore, all courses listed which were not designed primarily for physician veterans are also open to qualified returning medical officers.

Note that each course is listed only once, without cross indexing, so that in some instances a prospective student should look under more than one heading for a desired course.

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Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
OBSTETRICS AND GYNECOLOGY—Continued			
Columbia University, 630 W. 168th St., New York 32 At: Margaret Hague Maternity Hospital, Jersey City, N. J.	Obstetrics PM-80	Jan. 1, 1947, 3 months	350
	Obstetrics PM-80	April 1, 1947, 3 months	350
	Obstetrics PM-80	July 1, 1947, 3 months	350
	Obstetrics PM-81	1st of every month, 1 month	100
	Observation Course	1st of any month, 1 month, full time	100
At: Mount Sinai Hospital	Gynecology PM 30-Recent Advances in Gynecology	April 7-12, 1947, 6 days, full time	40
Columbia University—At: New York Postgraduate Medical School, 303 East 20th Street, New York 3	Diagnosis and Office Treatment of Gynecology	Jan. 6, 1947, 15 sessions, part time	40
	Diagnosis and Office Treatment of Gynecology	Feb. 17, 1947, 15 sessions, part time	40
	Diagnosis and Office Treatment of Gynecology	April 7, 1947, 15 sessions, part time	40
	Diagnosis and Office Treatment of Gynecology	May 19, 1947, 15 sessions, part time	40
	Gynecological Endocrinology	Jan. 2, 1947, 24 sessions, part time	100
	Gynecological Endocrinology	March 4, 1947, 24 sessions, part time	100
	Gynecological Endocrinology	May 1, 1947, 24 sessions, part time	100
	Gynecological Pathology [5]	Jan. 7-Feb. 27, 1947, 8 weeks part time, Tuesday and Thursday afternoons	75
	Seminar in Gynecology	Jan. 2-March 3, 1947, 2 months, full time	225
	Seminar in Gynecology	March 3, 1947, 2 months, full time	225
	Seminar in Gynecology	May 1, 1947, 2 months, full time	225
	Surgical Anatomy as Applied to Operative Gynecology [5] (Cadaver)	January-June, 1947, 12 sessions, Tuesday, Thursday, Saturday	200
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Clinical and Operative (Cadaver) Gynecology	Arranged, 6 weeks	175
	Obstetrics and Gynecology including Manikin Obstetrics and Cadaver Gynecology	April 1, 1947, 2 months	250
New York University College of Medicine, 477 First Avenue, New York 16 At: Beth Israel Hospital	Gynecology	Spring, 1947, 16 weeks, part time	250
At: Lenox Hill Hospital	Histopathology for Gynecologists	Jan. 14, 1947, 5 weeks, part time	50
	Histopathology for Gynecologists	April 29, 1947, 5 weeks, part time	50
Duke University School of Medicine, Durham, N. C.	Obstetrics and Gynecology	Arranged, 3 months or longer, full time	150 per qtr.
Oklahoma State Health Department, Oklahoma State Medical Association, Oklahoma City At: Ada, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
At: Bartlesville, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
At: Claremore, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]

References will be found on page 1033.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
OBSTETRICS AND GYNECOLOGY—Continued			
At: Durant, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
At: Hugo, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
At: Idabel, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
At: Miami, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
At: Pryor, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
At: Sulphur, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
Oklahoma State Health Department, Oklahoma State Medical Association, Oklahoma City At: Vinita, Okla.	Gynecology	Feb. 3-April 11, 1947, 10 weeks, 1 evening a week	$ 15 [15]
	Gynecology	April 14-June 27, 1947, 10 weeks, 1 evening a week	15 [15]
University of Oregon Medical School, West Marquam Hill Road, Portland 1, Ore.	Obstetrics	Jan. 27-31, 1947, 5 days, full time	50
	Gynecology	April 28-May 2, 1947, 5 days, full time	50
Tufts Medical School Postgraduate Division, 30 Bennet Street, Boston At: Providence Lying-In Hospital and Rhode Island Hospital, Providence, R. I.	Obstetrics and Pediatrics	March, 1947, 1 month, full time	100
	Obstetrics and Pediatrics	June, 1947, 1 month, full time	100
University of Tennessee College of Medicine, 874 Union Ave., Memphis, Tenn.	Postgraduate Course in Anesthesiology and Obstetrics	Jan. 1, 1947, 2 weeks (continuously)	150
Meharry Medical College, 1005—18th Ave. North at Heffernan St., Nashville, Tenn.	Obstetrics and Gynecology	Jan. 15, 1947 or thereafter 3 months or multiples thereof	125 per qtr.
University of Texas Medical Branch, Galveston, Tex.	Refresher Course in Obstetrics and Gynecology	March 17-22, 1947, 1 week	Not given
OPHTHALMOLOGY			
George Washington University School of Medicine, 1335 H St., N.W., Washington, D. C.	Annual Postgraduate Course in Ocular Surgery, Pathology and Orthoptics	Jan. 27-Feb. 1, 1947, 1 week, full time	200
	Ophthalmology	January 27-Feb. 8, 1947, 2 weeks	Not given
	Intensive Postgraduate Course in Ophthalmology	Feb. 3-8, 1947, 6 days	50
	The William Thornwall Davis Intensive Postgraduate Course in Ophthalmology	Feb. 3-8, 1947, 1 week, full time	50
The Children's Memorial Hospital, 707 Fullerton Ave., Chicago	Postgraduate Conference in Neuromuscular Anomalies of the Eyes [5]	May 1947, 6 days, full time	50
Cook County Graduate School of Medicine, 427 So. Honore Street, Chicago	Clinical Ophthalmology	Every 2 weeks, 2 weeks, full time	50
Northwestern University Medical School, 303 E. Chicago Ave., Chicago	Ophthalmology	Feb. 17-June 16, 1947, 4 months	400
	Basic Study in Ophthalmology	Feb. 17-June 16, 1947, 4 months, full time	400 [16]
University of Kansas School of Medicine, 39th St. and Rainbow Blvd., Kansas City, Kan. At: University of Kansas Hospitals	Eye, Ear, Nose and Throat (Intended Primarily for Men in general practice)	March 31-April 4, 1947, 5 days	20 [6]
Foundation for Vision, Inc., 520 Commonwealth Avenue, Boston 15 At: Ophthalmological Study Council, Boston 15	Intensive Course in Basic Subjects of Ophthalmology	April 1-June 15, 1947, 11 weeks	280 110 per mo. 80 eve. course
Harvard Medical School, Courses for Graduates, 25 Shattuck Street, Boston	Fundamentals in Refraction	Jan. 27-Feb. 21, 1947, 4 weeks	Not given
Tufts Medical School Postgraduate Division, 30 Bennet Street, Boston At: Boston Dispensary	Ophthalmoscopy	March 3-29, 1947, 1 mo., half time	50 [1]
University of Michigan Medical School, 1313 East Ann St., Ann Arbor, Mich.	Ophthalmology	Spring, 1947, 1 week	25
Wayne University Medical College, 1516 St. Antoine St., Detroit	Basic Ophthalmology	Jan. 14, 1947, 1 qtr.	100
University of Minnesota Medical School, Department of Postgraduate Education, Minneapolis 14 At: Center for Continuation Study	Continuation Course in Ophthalmology	Feb. 17-21, 1947, 5 days, full time	25
Washington University School of Medicine, Euclid Avenue and Kingshighway, St. Louis 10	Refresher Course in Ophthalmology	June 9-28, 1947, 3 weeks, full time	150
Columbia University, 630 W. 168th St., New York 32 At: Montefiore Hospital	Elementary Ophthalmoscopy	Jan. 6-March 3, 1947, 2 months, part time	30
	Perimetry [5]	March 17-May 5, 1947, 7 weeks, part time	25
At: Mount Sinai Hospital	Advanced Course in Ophthalmoscopy	Feb. 3-April 21, 1947, 10 weeks, part time	20
Columbia University—At: New York Postgraduate Medical School, 303 East 20th Street, New York 3	Anomalies of the Ocular Muscles [5]	March 17-21, 1947, 5 days, full time	60
	Differential Diagnosis with the Slit Lamp	March 3-7, 1947, 5 days, part time	45
	Motor Anomalies of the Eye [5]	March 10-15, 1947, 6 days, full time	45
	Ophthalmic Neurology [5]	March 3-7, 1947, 5 days, part time	45
	Surgery of the Eye [5]	March 24-29, 1947, 6 days, full time	75
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Ophthalmology	Jan., 1947, 6 weeks, part time	50
	Ophthalmology	Jan., 1947 3 months	75
	Ophthalmology, Including Cadaver Ophthalmology and Refraction	Jan., 1947, 3 months, part time	275
	Ophthalmology	April, 1947, 6 weeks	50
	Ophthalmology	April, 1947, 3 months	75
	Ophthalmology, Including Cadaver Ophthalmology and Refraction	April, 1947, 3 months, part time	275
	Refraction	Arranged, 6 weeks, part time	100

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Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	OPHTHALMOLOGY—Continued		
New York University College of Medicine, 477 First Avenue, New York 16 At: New York Eye and Ear Infirmary	Anatomy and Physiology [5]	Each month if 4 or more students 4 weeks, 3 hours each week	50
	Bacteriology, Serology, Immunology [5]	March, 1947, 2 weeks, 6 hours, each week	50
	The Etiology and Surgical Treatment of Detachment of the Retina [5]	Arranged, 4 weeks, 4 hours, each week	75
	External Eye Diseases, Ocular Therapy [5]	Arranged, 1 month, 3 evenings a week	50
	Glaucoma Clinic [5]	Arranged, 8 weeks, 2 hours each week	50
	Histo-pathology of the Eye [5]	January-March 1947, 3 months, 1 evening a week	100
	Motor Anomalies [5]	Arranged, 1 month, part time	50
	Neuro-Ophthalmology [5]	Arranged, 1 month, part time	60
	Ocular Muscles [5]	Jan., 1947, 1 month, 3 days a week	50
	Ocular Muscles [5]	April, 1947, 1 month, 3 days a week	50
	Ocular Muscles [5]	June, 1947 1 month, 3 days a week	50
	Operative Eye Surgery (and with Animal Eyes) [5]	Arranged, 1 month, 3 evenings a week	100
	Ophthalmoscopy [5]	Arranged, 1 month, 2 days a week	50
	Perimetry [5]	Arranged, 1 month, 3 days a week	50
	Physiologic Optics [5]	Jan., 1947, 8 weeks, 3 hours each week	100
	Physiologic Optics [5]	April, 1947, 8 weeks, 3 hours each week	100
	Plastic Eye Surgery [5]	Jan., 1947, 4 weeks, 3 days a week	75
	Plastic Eye Surgery [5]	April, 1947, 4 weeks, 3 days a week	75
	Plastic Eye Surgery [5]	June, 1947, 4 weeks, 3 days a week	75
	Refraction [5]	Jan., 1947, 3 months, 3 evenings a week	100
	Refraction [5]	April, 1947, 3 months, 3 evenings a week	100
	Refraction [5]	June, 1947, 3 months, 3 evenings a week	100
	Slit Lamp Microscopy [5]	Jan., 1947, 1 month, 2 days a week	50
	Slit Lamp Microscopy [5]	April, 1947, 1 month, 2 days a week	50
	Slit Lamp Microscopy [5]	June, 1947, 1 month, 2 days a week	50
Duke University School of Medicine, Durham, N. C.	Ophthalmology	Arranged, 3 months or longer, full time	150 per qtr.
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia 4 At: Wills Eye Hospital	Ophthalmic Histology and Pathology	Arranged, 8 weeks, 96 hours	200
	ORTHOPEDIC SURGERY		
College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 14 At: White Memorial Hospital	General Orthopedic Surgery and Traumatology	Feb. 17, 1947, 6 weeks	$125
Columbia University—At: New York Postgraduate Medical School, 303 East 20th Street, New York 3	Functional Anatomy in Relation to Orthopedics	Feb. 17-March 21, 1947, 10 sessions, Monday and Friday, part time	60
	Seminar in Orthopedic Surgery [5]	Jan. 27-Feb. 7, 1947, 10 days, full time	90
	Orthopedics in General Practice	April 28-May 3, 1947, 6 days, full time	50
Duke University School of Medicine, Durham, N. C.	Orthopedic Surgery	Arranged, 3 months or longer, full time	150 per qtr.
University of Oregon Medical School, West Marquam Hill Road, Portland 1, Ore.	Orthopedic Surgery	May 19-23, 1947, 5 days, full time	50
	OTOLARYNGOLOGY		
University of Southern California School of Medicine, 3351 University Ave., Los Angeles 7 At: Los Angeles County and Children's Hospitals	Otolaryngology, Course No. 751	Feb. 3, 1947, 12 weeks, full time	250 [1]
Cook County Graduate School of Medicine, 427 So. Honore Street, Chicago	Clinical Otolaryngology	Every 2 weeks, 2 weeks, full time	50
University of Illinois College of Medicine, 1853 West Polk Street, Chicago	Refresher Course in Otolaryngology for Specialists [5]	May, 1947, 1 week, full time	50
University of Kansas School of Medicine, 39th St. and Rainbow Blvd., Kansas City 3, Kan. At: University of Kansas Hospitals	Eye, Ear, Nose and Throat (Intended primarily for men in general practice)	March 31-April 4, 1947, 5 days	20 [6]
Tufts Medical School Postgraduate Division, 30 Bennet Street, Boston At: Boston Dispensary	Otolaryngology	Monthly, 3 or 5 mornings a week	30 for 3 a.ms. 50 for 5 a.ms.
University of Michigan Medical School, Department of Postgraduate Medicine, 1313 East Ann Street, Ann Arbor, Mich. At: University of Michigan Hospital	Otolaryngology	Spring, 1947, 1 week	25
	Ophthalmology and Otolaryngology [5]	Spring 1947, 6 days, full time	50
Columbia University—At: New York Postgraduate Medical School, 303 East 20th Street, New York 3	Diagnostic Procedures in Otolaryngology	Jan. 2-June 30, 1947, arranged, part time	40 to 60
	Symposium on Otolaryngology [5]	May 12-23, 1947, 2 weeks, full time	90
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Clinical Otolaryngology	January 1947, 6 weeks, part time	75
	Clinical Otolaryngology	January 1947, 3 mo., part time	100
	Clinical Otolaryngology	April 1947, 6 weeks, part time	75
	Clinical Otolaryngology	April 1947, 3 mo.	100
	Clinical Otolaryngology and Ophthalmology	January 1947, 6 weeks	100
	Clinical Otolaryngology and Ophthalmology	January 1947, 3 mo.	150
	Clinical Otolaryngology and Ophthalmology	April 1947, 6 weeks	100
	Clinical Otolaryngology and Ophthalmology	April 1947, 3 mo.	150
	Head and Neck Dissection	Arranged, 6 weeks	150
	Ophthalmology and Otolaryngology, including Cadaver Courses and Refraction	January 1947, 3 mo., full time	600
	Ophthalmology and Otolaryngology, including Cadaver Courses and Refraction	April 1947, 3 mo., full time	600

References will be found on page 1033.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	OTOLARYNGOLOGY—Continued		
Duke University School of Medicine, Durham, N. C.	Otolaryngology	Arranged, 3 mo. or longer, full time	150 per qtr.
University of Cincinnati College of Medicine, Eden and Bethesda Aves., Cincinnati	Graduate Operative Course in Otolaryngology	April 14-20, 1947, 6 days	100
University of Oregon Medical School, West Marquam Hill Road, Portland 1, Ore.	Ophthalmology and Otolaryngology	April 7-12, 1947, 6 days, full time	50
Temple University School of Medicine, 3400 N. Broad St., Philadelphia	Laryngology and Broncho-Esophagology	Arranged, probably February 1947, 2 weeks, 60 hours	250
	Laryngology and Broncho-Esophagology	Arranged, probably April 1947, 2 weeks, 60 hours.	250
Gill Memorial Eye, Ear and Throat Hospital, Roanoke, Va.	Annual Spring Graduate Course	April 7-12, 1947, 1 week	50
	OTOLOGY		
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Advanced Otology	Arranged	82.50
New York University College of Medicine, 477 First Avenue, New York 16 At: New York Eye and Ear Infirmary	Anatomy and Physiology [5]	Each month if 4 or more students, 4 weeks, 3 hours each week	50
	Anatomy of the Ear [5]	Each month if 4 or more students, 1 mo., part time	50
	Bacteriology, Serology, Immunology [5]	March 1947, 2 weeks, 6 hours each week	50
	Clinical Otology [5]	Arranged, 4 weeks, 4 hours each week	75
	Operative Ear Surgery [5]	Each month if 4 or more students, 1 mo., part time	200
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia 4 At: Anatomical Laboratory	Otologic Operations (Cadaver)	Arranged, 2 weeks, 20 hours	100
	OTORHINOLARYNGOLOGY		
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia 4 At: Anatomical Laboratory	Rhinolaryngologic Operations (Cadaver)	Arranged, 10 days, 20 hours	150
	PATHOLOGY		
Cook County Graduate School of Medicine, 427 So. Honore Street, Chicago	2 Weeks Surgical Pathology	January-July 1947, every 2 weeks, 2 weeks, full time	150
	1 Month Course, Surgical Pathology	January-July 1947, every mo., 1 mo., full time	250
University of Maryland School of Medicine, Lombard and Greene Sts., Baltimore	Basic Training and General Pathology	Jan. 15-July 1, 1947, 5½ mo.	300
	Review of Pathology	Jan. 15-July 1, 1947, 5½ mo.	150
	Training in General Pathology as Part of Preparation for Certification in Surgery	Jan 15-July 1, 1947, 6 mo.	150
	Neuropathology	Jan. 15-July 1, 1947, 6 mo., full time	200 [17]
Creighton University School of Medicine, 306 North 14th Street, Omaha	Clinical Pathological Conference	Arranged, 3 mo.	None
	Medical and Surgical Pathological Conferences	Arranged, 3 mo.	None
	Microscopical Pathology	Arranged, 2 weeks	None
	Senior Clinicopathologic Conference	Arranged, 3 mo.	None
	Senior Pathological Conference	Arranged, 3 mo.	None
	Surgical Pathology	Arranged, 1 or 2 weeks	None
Columbia University, 630 W. 168th St., New York 32 At: Mount Sinai Hospital	Pathology	1st of any month, 2-6 mo.	55 per mo.
	Surgical Pathology	1st of any month, 2-6 mo.	55 per mo.
	Surgical Pathology	Feb. 8-May 24, 1947, 15 weeks, part time	100
Columbia University—At: New York Postgraduate Medical School, 308 East 20th Street, New York 3	Gross and Microscopic Pathology	April 21-May 28, 1947, 6 weeks, part time, Mon. and Fri., 2-5 p. m.	75
	Pathology of the Blood and Blood-Forming Organs	March 3-28, 1947, 4 weeks, part time	75 [5]
New York Medical College, Flower and Fifth Avenue Hospitals, 1 East 105th Street, New York	Clinical Pathology	Arranged, 26 hours, part time	100
	Pathology	Arranged, 16 weeks, half time	200
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Practical Laboratory Instruction in Pathology and Bacteriology	Arranged	Arranged
New York University College of Medicine, 477 First Avenue, New York	Pathology (Surgical)	Jan. 6, 1947, 12 weeks, part time	175 vets. 200 non-vets.
At: Bellevue Hospital	Radiation Pathology	Spring 1947, 16 weeks, part time	75 vets. 90 non-vets.
University of North Carolina School of Medicine, Chapel Hill, N. C.	Pathology	Arranged	25
Duke University School of Medicine, Durham, N. C.	Gross and Microscopic Conferences on Surgical Pathology	Arranged, 3 mo. or longer, full time	150 per qtr.
	Pathology	Arranged, 3 mo. or longer, full time	150 per qtr.
	Pathological Research	Arranged, 3 mo. or longer, full time	150 per qtr.
	Staff Appointments in Pathology	Arranged, 3 mo. or longer, full time	150 per qtr.
	Systematic Review of General and Surgical Pathology	Arranged, 3 mo. or longer, full time	150 per qtr.
Meharry Medical College, 1005 18th Avenue, Nashville, Tenn.	General Pathology	Jan. 15, 1947, or thereafter, 3 mo. or multiples thereof	125 per qtr.
University of Texas Medical Branch, 912 Ave. B, Galveston, Tex.	Surgical Pathology	By arrangement	Not given
	PEDIATRICS		
Colorado State Medical Society, Republic Building, Denver At: Shirley Savoy Hotel	Pediatrics	Feb. 19-21, 1947, not definite	5 regis.
George Washington University School of Medicine, 1335 H St., N.W., Washington, D. C.	Intensive Postgraduate Course in Pediatrics	Feb. 24-March 14, 1947, 3 weeks, full time	150
	Pediatrics	March 3-14, 1947, 2 weeks	Not given
Emory University Medical School, 50 Armstrong Street, Atlanta, Ga. At: Grady Memorial Hospital and Emory University Hospital	Pediatrics	Arranged, 2 weeks-3 mo., or longer	125 per qtr. 12 per wk.

References will be found on page 1033.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	PEDIATRICS—Continued		
Cook County Graduate School of Medicine, 427 So. Honore Street, Chicago	Clinical Course in Pediatrics	1st and 3rd Mon. of each mo., except April 1947, 2 weeks, full time	60
	Clinical Course in Pediatrics	1st and 3rd Mon. of each mo., except April 1947, 1 mo., full time	100
	4 Weeks Formal Course in Pediatrics	April 7, 1947, 4 weeks, full time	150
University of Kansas School of Medicine, 39th Street and Rainbow Blvd., Kansas City 3, Kan. At: University of Kansas Hospitals	Pediatrics and Public Health	Feb. 24-28, 1947, 5 days	20 [6]
Mississippi State Board of Health, Jackson, Miss. At: Tulane University	Pediatrics	March 3-7, 1947, 5 days	25 [18]
Tufts Medical School, Postgraduate Division, 30 Bennet Street, Boston 11 At: Boston Dispensary, Boston Floating Hospital	Pediatrics	As demand arises, 1 week, full time	50
At: 20 Arch Street, Boston	Pediatrics	March 31-April 12, 1947, 2 weeks, full time	75 [1]
University of Michigan Medical School, Ann Arbor, Mich.	Pediatrics, New Developments in Pediatric Practice	Spring 1947, 3 days	15
University of Minnesota Medical School, Minneapolis 14 At: Center for Continuation Study	Pediatrics	To be announced, 3 days	15
	Pediatrics	To be announced, 6 days	25
	Pediatrics	To be announced, 12 days	50
Long Island College of Medicine, Joint Committee on Postgraduate Education, 1313 Bedford Avenue, Brooklyn 2 At: Jewish Hospital	Child Psychiatry	April 17, 1947, 12 sessions, once a week	20
At: Kings County Hospital	Heart Disease in Childhood	April 11, 1947, 10 sessions, once a week	20
University of Buffalo Medical School, 24 High Street, Buffalo	Pediatrics	January 1947, 2 weeks	Not given
Columbia University, 630 West 168th Street., New York 32 At: Mount Sinai Hospital	Clinical Pediatrics	Feb. 4-April 18, 1947, 11 weeks, part time	65
At: New York Postgraduate Medical School, 303 East 20th Street, New York 3	Clinical Pediatrics	Jan. 6, 1947, 4 weeks, full time	125
	Clinical Pediatrics	March 3, 1947, 4 weeks, full time	125
	Clinical Pediatrics	May 5, 1947, 4 weeks, full time	125
	Neurology and Psychiatry for Pediatricians [5]	April 21-May 3, 1947, 2 weeks, full time	75
	Practical Clinical Pediatrics	Feb. 3, 1947, 4 weeks, full time	100
	Practical Clinical Pediatrics	April 1, 1947, 4 weeks, full time	100
	Practical Clinical Pediatrics	June 2, 1947, 4 weeks, full time	100
	Symposium on Recent Advances in Pediatrics	Feb. 10, 1947, 6 days, full time	50
	Symposium on Recent Advances in Pediatrics	April 14, 1947, 6 days, full time	50
	Symposium on Recent Advances in Pediatrics	June 9, 1947, 6 days, full time	50
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Pediatrics	Arranged, 4 weeks, part time	50
New York University College of Medicine, 477 First Avenue, New York 16 At: Lenox Hill Hospital	Pediatrics	Winter 1947, 8 weeks, Tuesday and Friday afternoons	50
Duke University School of Medicine, Durham, N. C.	Pediatrics	Arranged, 3 mo. or longer, full time	150 per qtr.
Southern Pediatric Seminar At: Saluda, N. C.	Postgraduate Course in Pediatrics	Last 2 weeks in July 1947, 2 weeks, 6 hours a day	25
University of Cincinnati College of Medicine, Eden and Bethesda Aves., Cincinnati	Refresher Course in Pediatrics	July 15, 1947, 2 mo., full time	30 per mo.
University of Oregon Medical School, West Marquam Hill Road, Portland 1, Ore.	Pediatrics	Feb. 10-14, 1947, 5 days, full time	50
Tufts Medical School, Postgraduate Division, 30 Bennet Street, Boston 11 At: Providence Lying In Hospital and Rhode Island Hospital, Providence, R. I.	Obstetrics and Pediatrics	March 1947, 1 mo., full time	100
	Obstetrics and Pediatrics	June 1947, 1 mo., full time	100
Meharry Medical College, 1005 18th Avenue, Nashville, Tenn.	Pediatrics	Jan. 15-29, 1947, 2 weeks, full time	35
University of Texas Medical Branch, 912 Avenue B, Galveston, Tex.	Spring Conference in Pediatrics	March 31-April 5, 1947, 1 week	Not given
University of Wisconsin Medical School, 418 North Randall Street, Madison 6, Wis.	Observation Course in Pediatrics	April 1947, 5 days, full time	25
	PHARMACOLOGY		
University of North Carolina School of Medicine, Chapel Hill, N. C.	Pharmacology	Arranged	25
Duke University School of Medicine, Durham, N. C.	Pharmacology	Arranged, 3 mo. or longer, full time	150 per qtr.
	Recent Advances in Pharmacology	Arranged, 10-12 weekly seminars, part time	150 per qtr.
	PHYSICAL MEDICINE		
Northwestern University Medical School, 308 East Chicago Avenue, Chicago	Physical Medicine	Arranged, 3 mo.	166.66
University of Kansas School of Medicine, 39th Street and Rainbow Boulevard, Kansas City 3, Kan. At: University of Kansas Hospitals	Physical Medicine	Jan. 13-17, 1947, 5 days	20 [6]
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Physical Medicine	Arranged, 4 weeks	100
New York University College of Medicine, 477 First Avenue, New York At: Bellevue Hospital and Institute for Crippled and Disabled	Physical Medicine	Spring 1947, 3 mo. daily, part time	200
University of Texas Medical Branch, 912 Avenue B, Galveston, Tex.	Physical Medicine	March 3-7, 1947, 5 days	Not given
	PHYSIOLOGY		
Columbia University, 630 West 168th Street, New York 32 At: Mount Sinai Hospital	Physiology of Water and Electrolyte Balance	March 31-April 22, 1947, 3 weeks, part time	30
Columbia University—At: New York Post-graduate Medical School, 303 East 20th Street, New York 3	Normal and Pathological Physiology, Functional and Chemical Aspects	Jan. 8-Feb. 26, 1947, 2 mo., part time, Wednesdays	30
	Normal and Pathological Physiology, Functional and Chemical Aspects	March 3-14, 1947, 10 days, full time	75

References will be found on page 1033.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	PHYSIOLOGY—Continued		
New York University College of Medicine, 477 First Avenue, New York	Physiology	March 3, 1947, 16 weeks, Thursday and Friday afternoons, 2-5 p. m.	65 vets. 75 non-vets.
University of North Carolina School of Medicine, Chapel Hill, N. C.	Physiology	Arranged	25
Duke University School of Medicine, Durham, N. C.	Physiology	Arranged, 3 mo. or longer, full time	150 per qtr.
	Recent Advances in Physiology	Arranged, 10-12 weekly seminars, part time	150 per qtr.
	PRECEPTORSHIP		
Creighton University School of Medicine, 306 North 14th Street, Omaha	Preceptorship	Arranged, 3 mo.	None
	PROCTOLOGY		
College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33 At: White Memorial Hospital	Proctology	Jan. 9-March 13, 1947, 10 weeks, 1 day a week for 2 hours	35
Maine Medical Association, 177c Main Street, Waterville, Me. At: Boston, Mass.	Proctology	Arranged, 1-2 weeks	None [3]
Tufts Medical School, Postgraduate Division, 30 Bennet Street, Boston 11 At: Pratt Diagnostic Hospital, Boston Dispensary	Proctology I	April 28-May 2, 1947, 1 week, full time	40
	Proctology III	May 12-June 7, 1947, 1 mo., part time	100
Long Island College of Medicine, Joint Committee on Postgraduate Education, 1313 Bedford Avenue, Brooklyn 2	Proctology	April 14, 1947	25
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Proctology	January 1947, 6 weeks, part time	75
	Proctology, Gastroenterology, Operative Proctology	January 1947, 6 weeks	200
	Proctology	April 1947, 6 weeks, part time	75
	Proctology, Gastroenterology, Operative Proctology (Cadaver)	April 1947, 6 weeks	200
New York University College of Medicine, 477 First Avenue, New York At: Proctologic Clinic of N. Y. U. and Bellevue Hospital	Proctology	Spring 1947, 8 weeks, 5 days a week, 10-12 a. m.	100
	PUBLIC HEALTH		
University of Kansas School of Medicine, 39th Street and Rainbow Boulevard, Kansas City 3, Kan. At: University of Kansas Hospitals	Pediatrics and Public Health	Feb. 24-28, 1947, 5 days	20 [6]
University of Michigan School of Public Health, 109 South Observatory Street, Ann Arbor, Mich.	Public Health	Feb. 10, 1947, 16 weeks, full time	100 res. 175 non-res.
	Public Health Administration	Feb. 10, 1947, 16 weeks, full time	100 res. 175 non-res.
New York State Department of Health At: Albany Medical College, 47 New Scotland Avenue, Albany, N. Y.	Extension Course for Grade II Health Officers (Correspondence)	Continuous, enter any time	40
University of North Carolina, Chapel Hill, N. C. At: University of N. C., School of Public Health	Public Health	June-August 1947, 3 mo.	100 per qtr.
	RADIOLOGY		
College of Medical Evangelists, 312 North Boyle Avenue, Los Angeles 33 At: White Memorial Hospital	Roentgenology	Jan. 10, 1947, 12 periods, 1 morning each week	35
	Roentgenology	April 4-June 13, 1947, 12 periods, 1 morning, each week	25
Colorado State Medical Society, Republic Building, Denver At: Shirley Savoy Hotel	Radio-Physicist	Feb. 19-21, 1947, not definite	5 regis. fee
American College of Radiology, 20 N. Wacker Drive, Chicago At: Medical Schools	Special Courses	Varied	Varied
Cook County Graduate School of Medicine, 427 So. Honore Street, Chicago	Lecture and Clinical Roentgenology Course #1	1st Monday of every month, 2 weeks, full time	125
	Clinical Roentgenology Course #2	3rd Monday of every month, 2 weeks, full time	70
University of Kansas School of Medicine, 39th Street and Rainbow Boulevard, Kansas City 3, Kan. At: University of Kansas Hospitals	Radiology and Cancer	June 9-13, 1947, 5 days	20 [6]
Maine Medical Association, 177c Main Street, Waterville, Me. At: Boston, Mass.	Roentgenology	Arranged, 1-2 weeks	None [3]
Harvard University Medical School, 25 Shattuck Street, Boston, Mass. At: Peter Bent Brigham Hospital	General Radiology	Monthly, 1 mo.	100
At: Massachusetts General Hospital	General Radiology	January-June 1947, 1 mo.	100
Tufts Medical School, Postgraduate Division, 30 Bennet Street, Boston 11	Radiology II	April 21-25, 1947, 4 days	40
At: Pratt Diagnostic Hospital	Radiology I	Feb. 3-March 1, 1947, 1 mo., full time	40
University of Michigan Medical School, 1313 East Ann Street, Ann Arbor, Mich.	Diagnostic Roentgenology	Spring 1947, 1 week	30
University of Minnesota Medical School, Minneapolis 14 At: Center for Continuation Study	Radiology	To be announced, 3 days	15
	Radiology	To be announced, 6 days	25
	Radiology	To be announced, 12 days	50
Creighton University School of Medicine, 306 North 14th Street, Omaha, Neb.	Radiology	Arranged, 3 mo.	None
Long Island College of Medicine, Joint Committee on Postgraduate Education, 1313 Bedford Avenue, Brooklyn 2 At: Jewish Hospital	Cardiovascular Roentgenology	April 1947, 8 sessions, once weekly, part time	20
Columbia University, 630 West 168th Street, New York 32 At: Columbia Presbyterian Medical Center	Radiological Physics	March 5-April 25, 1947, 8 weeks, part time, Wed. and Fri., 5-6	25
At: Affiliated Hospitals	Symposium on Diagnostic Radiology	March 3-May 9, 1947, 2 mo., full time	250
New York Medical College, Flower and Fifth Avenue Hospitals, 1 East 105th Street, New York	Diagnostic Roentgenology	Arranged, part time	150
	Radium and Roentgen Therapy	Arranged, part time	150
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York 19	Radiology	January 1947, 3 mo.	300
	Radiology	April 1947, 3 mo.	300
New York University College of Medicine, 477 First Avenue, New York At: Beth Israel Hospital	Roentgenology	Jan. 7, 1947, 8 weeks, Tuesdays and Thursdays, 2-4	50
At: N. Y. U. College of Medicine and City Hospital	Radiology	Jan. 20, 1947, 12 weeks, part time	100
Duke University School of Medicine, Durham, N. C.	Radiology	Arranged, 3 mo. or longer, full time	150 per qtr.
American College of Radiology, 20 North Wacker Drive, Chicago 6 At: Cleveland	Postgraduate Course in Radiology	February 1947, 1 week	50

References will be found on page 1033.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	RADIOLOGY—Continued		
University of Oregon Medical School, West Marquam Hill Road, Portland 1, Ore.	Radiology	May 5-9, 1947, 5 days, full time	50
American College of Radiology, 20 North Wacker Drive, Chicago 6 At: Philadelphia County Medical Society Building	Postgraduate Course in Radiology [5]	March 30-April 5, 1947, 1 week	50
Meharry Medical College, 1005 18th Ave., Nashville, Tenn.	Radiology	Jan. 15, 1947, or thereafter, 3 mo. or multiples thereof	125 per qtr.
	SURGERY		
University of Alabama School of Medicine, University, Ala.	Surgery	April 1947, 1 week	None
University of Southern California Division of Graduate Medicine, 3551 University Avenue, Los Angeles 7 At: Los Angeles County Hospital	Recent Surgical Advances, Course No. 736	May 14, 1947, 12 evening lectures, 1 evening weekly	50 [1]
Colorado State Medical Society, Republic Building, Denver At: Shirley Savoy Hotel	Surgery	Feb. 19-21, 1947	5 regis.
George Washington University School of Medicine, 1335 H Street, N.W., Washington 5, D. C.	Intensive Postgraduate Course in Surgery	Feb. 10-March 14, 1947, 5 weeks, full time	250
	Intensive Refresher Course in General Surgery	Feb. 17-21, 1947, 1 week, full time	50
Cook County Graduate School of Medicine, 427 So. Honore Street, Chicago	Clinical Surgery	Feb. 17, 1947, 2 weeks, full time	85
	Clinical Surgery	March 17, 1947, 2 weeks, full time	85
	Clinical Surgery	April 14, 1947, 2 weeks, full time	85
	Clinical Surgery	May 12, 1947, 2 weeks, full time	85
	Clinical Surgery	June 9, 1947, 2 weeks, full time	85
	Gall Bladder Surgery	April 14, 1947, 1 week, full time	100
	Gall Bladder Surgery	June 2, 1947, 1 week, full time	100
	General Surgery	Feb. 3, 1947, 4 weeks, full time	300
	General Surgery	March 3, 1947, 4 weeks, full time	300
	General Surgery	March 31, 1947, 4 weeks, full time	300
	General Surgery	April 28, 1947, 4 weeks, full time	300
	General Surgery	May 26, 1947, 4 weeks, full time	300
	General Surgery	July 7, 1947, 4 weeks, full time	300
	Surgery of the Colon and Rectum	March 10, 1947, 1 week, full time	100
	Surgery of the Colon and Rectum	April 7, 1947, 1 week, full time	100
	Surgery of the Colon and Rectum	May 5, 1947, 1 week, full time	100
	Surgery of the Colon and Rectum	June 2, 1947, 1 week, full time	100
	Surgical Diagnosis, Postoperative and Preoperative Care	To be announced, 10 weeks, 1 day each week	100
	Surgical Technique with Practice	To be announced, 10 weeks, part time	200
	Surgical Technique	Jan. 20, 1947, 2 weeks, full time	200
	Surgical Technique	Feb. 17, 1947, 2 weeks, full time	200
	Surgical Technique	March 17, 1947, 2 weeks, full time	200
	Surgical Technique	April 14, 1947, 2 weeks, full time	200
	Surgical Technique	May 12, 1947, 2 weeks, full time	200
	Surgical Technique	June 9, 1947, 2 weeks, full time	200
	Thoracic Surgery	To be announced, 1 week	100
	Thoracic Surgery	To be announced, 1 mo.	300
	Vaginal Approach to Pelvic Surgery	March 10, 1947, 1 week, full time	100
	Vaginal Approach to Pelvic Surgery	April 7, 1947, 1 week, full time	100
	Vaginal Approach to Pelvic Surgery	May 5, 1947, 1 week, full time	100
	Vaginal Approach to Pelvic Surgery	June 9, 1947, 1 week, full time	100
University of Kansas School of Medicine, 39th Street and Rainbow Boulevard, Kansas City 3, Kan. At: University of Kansas Hospitals	Surgery	May 12-16, 1947, 5 days	20 [6]
Tulane University of Louisiana School of Medicine, 1430 Tulane Avenue, New Orleans 13	Neoplastic Diseases	April 7-12, 1947, 5½ days, full time	25
	Traumatic and Emergency Surgery	Jan. 6-11, 1947, 5½ days, full time	25
Tufts Medical School Postgraduate Division, 30 Bennet Street, Boston At: Pratt Diagnostic Hospital	Principles of Surgical Technique	March 3-April 25, 1947, 8 weeks, 3 days a week	200 [1]
	Surgery	Feb. 3-March 1, 1947, 1 month, full time	100
	Surgery	May 5-31, 1947, 1 month, full time	100
	Surgical Anatomy	Not given, 8 weeks, 3 days a week	200 [1]
University of Minnesota Medical School, Department of Postgraduate Education, Minneapolis 14 At: Center for Continuation Study	Surgery	To be announced, 3 days	15
	Surgery	To be announced, 6 days	25
	Surgery	To be announced, 12 days	50
Columbia University, 630 West 168th Street, New York 32 At: Affiliated Hospitals	Symposium on General Surgery	May 12-16, 1947, 5 days, full time	50
At: Mount Sinai Hospital	Surgery of the Gastro-Intestinal Tract [5]	Jan. 6-31, 1947, 4 weeks, full time	150
	Surgery of the Gastro-Intestinal Tract [5]	April 21-May 16, 1947, 4 weeks, full time	150
	Basic Course in Traumatic Surgery [5]	Jan. 13-Feb. 21, 1947, 6 weeks, full time	200
	Diagnosis and Treatment of Trauma	May 19-24, 1947, 6 days, full time	50
Columbia University—At: New York Postgraduate Medical School, 309 East 20th Street, New York 3	Dissection and Surgical Anatomy [5]	Arranged, 12 sessions, part time	150
	Review of General Surgery for Surgeons [5]	April 7-May 2, 1947, 4 weeks, full time	125
	Seminar in Traumatic Surgery	March 3-15, 1947, 2 weeks, full time	90
	Surgical Anatomy as Applied to Colon and Rectal Surgery (Cadaver) [5]	Arranged, 6 sessions, part time	100
	Surgical Anatomy as Applied to General Surgery (Cadaver) [5]	Arranged, 12 sessions, part time	200
	Surgical Anatomy as Applied to Thoracic Surgery [5]	Arranged, 12 sessions, part time	200
	Surgical Pathology [5]	March 4-June 12, 1947, 15 weeks, part time, Tuesday and Thursday	150
New York Medical College, Flower and Fifth Avenue Hospitals, 1 East 105th Street, New York	Gastrointestinal Surgery	Arranged, 1 month	200
	Surgical Aspects of Peripheral Vascular Diseases	Arranged, 1 month	200
	Thoracic Surgery	Spring, 1947, 3 weeks	225

References will be found on page 1033.

Postgraduate Courses for Practicing Physicians—Jan. 1, 1947 to July 15, 1947—Continued

Institution	Title of Course	Schedule of Course	Registration Fee and/or Tuition
	SURGERY—Continued		
New York Polyclinic Medical School and Hospital, 341 West 50th Street, New York	Clinical and Operative (Cadaver) Surgery	Arranged, 6 weeks, full time	200
	Clinical Surgery	Jan., 1947, 6 weeks	100
	Clinical Surgery	April, 1947, 6 weeks	100
	Combined Surgical Course Including Cadaver Surgery and Gynecology	Jan., 1947, 3 months	350
	Combined Surgical Course Including Cadaver Surgery and Gynecology	April, 1947, 3 months	350
New York University College of Medicine, 477 First Avenue, New York	Histopathology for Surgeons	Jan. 13, 1947, 5 weeks, part time	50
	Histopathology for Surgeons	April 28, 1947, 5 weeks, part time	50
At: Lenox Hill Hospital	Recent Advances in Thoracic Surgery [5]	March, 1947, 1 month, full time	250
At: Triboro Hospital	Recent Advances in Thoracic Surgery [5]	March, 1947	250
Duke University School of Medicine, Durham, N. C.	Surgery	Arranged, 3 months or longer, full time	150 per qtr.
County Medical Association, 3400 North Eastern, Oklahoma City—At: Altus, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Alva, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Ardmore, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Duncan, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Enid, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Guymon, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Lawton, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Watonga, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
At: Woodward, Okla.	Surgical Diagnosis	Jan.-June, 1947, 10 weeks, 3 hours a week	9 [19]
University of Oregon Medical School, West Marquam Hill Road, Portland 1	General Surgery	March 3-7, 1947, 10 weeks, 3 hours a week	9 [19]
University of Vermont College of Medicine, Pearl Street, College Park, Burlington, Vt.	Course in Surgery	Throughout year, 4 weeks, 3-5 hours daily (minimum)	750 per yr. [14]
	THERAPY		
College of Medical Evangelists, 312 N. Boyle Avenue, Los Angeles 33 At: White Memorial Hospital	Physical Therapy	Feb. 6, 1947, 10 weeks, 10 hours (1 hour each week)	30
Cook County Graduate School of Medicine, 427 So. Honore Street, Chicago	X-Ray Therapy	Every 2 weeks, 2 weeks, full time	110
	X-Ray Therapy	Every 2 weeks, 3 months, full time	300
University of Michigan Medical School, Department of Postgraduate Medicine, 1313 East Ann Street, Ann Arbor, Mich.	Recent Advances in Therapeutics	Spring, 1947, 3 days	15
Long Island College of Medicine, Joint Committee on Postgraduate Education, 1313 Bedford Avenue, Brooklyn 2	Biologic Fundamentals of Radiation Therapy	April 8, 1947, 10 sessions, once a week, evenings	20
New York University College of Medicine, 477 First Avenue, New York At: Bellevue Hospital	Radiation Therapy	Feb. 3-March 28, 1947, 8 weeks, part time	175 non-vets.[5] 125 vets.
	Refresher Course in Radiation Therapy	March 31-May 23, 1947, 8 weeks, part time	175 non-vets.[5] 125 vets.
	Radiation Therapy	July 1, 1947, 52 weeks, full time	600 non-vets.[5] 500 vets.
	TROPICAL MEDICINE		
Tulane University of Louisiana School of Medicine, 1430 Tulane Avenue, New Orleans 13	Tropical Medicine and Medical Parasitology	Jan. 6-May 24, 1947, 5 months	300
Columbia University—At: New York Postgraduate Medical School, 308 East 20th Street, New York 3	Clinical Tropical Medicine and Parasitology	June 2-6, 1947, 5 days, full time	45
	UROLOGY		
College of Medical Evangelists, 312 N. Boyle Avenue, Los Angeles 33 At: White Memorial Hospital	General Urology	Jan. 6, 1947, 10 periods; 1 morning each week	35
Tulane University of Louisiana School of Medicine, 1430 Tulane Avenue, New Orleans 13	Urinary Disease	March 10-15, 1947, 5½ days, full time	25
Tufts Medical School Postgraduate Division, 30 Bennet Street, Boston At: Boston Dispensary and Pratt Diagnostic Hospital	Urology	Feb. 10-15, 1947, 1 week, full time	40 [1]
Columbia University—At: New York Postgraduate Medical School, 308 East 20th Street, New York 3	Advanced Course in Urology for Specialists [5]	Feb. 3-March 29, 1947, 2 months, full time	225
Long Island College of Medicine, Joint Committee on Postgraduate Education, 1313 Bedford St., Brooklyn 2 At: Long Island College Hospital	Urology	First of each month, 1 month or longer, part time	25 per mo.
New York Hospital, 525 East 68th Street, New York At: Brady Foundation for Urology and New York Hospital	Postgraduate Course in Urology	Jan. 1-July 1, 1947, 6 months, 33 hours a week	500 in advance
	Postgraduate Course in Urology	July 1, 1947-Jan. 1, 1948, 6 months, 33 hours per week	500 in advance
New York University College of Medicine, 477 First Avenue, New York At: Beth Israel Hospital	Clinical Urology	Jan. 6, 1947, 6 weeks, part time	100
Duke University School of Medicine, Durham, N. C.	Urology	Arranged, 3 months or longer, full time	150 per qtr.
	VENEREAL DISEASES		
Bureau of Social Hygiene, City of New York, Department of Health, 125 Worth Street, New York At: Central Clinic	Practical Course in Dnignosis, Treatment and Control of Venereal Diseases	Every 2 weeks, 2 weeks	None
	Seminar in Diagnosis and Treatment of Venereal Diseases (Lectures)	Spring, 1947, 14 sessions	None
Harvard University Medical School, Courses for Graduates, 25 Shattuck Street, Boston At: Harvard University School of Public Health	Public Health Practice, Venereal Disease Control	April 7-May 24, 1947, 7 weeks, part time, 3 mornings a week	36.25

1. Plus $5.00 registration fee.
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Correspondence

PSYCHIATRY IN WORLD WAR II

To the Editor:—The communication "Psychiatry in World War II" by Dr. Amos R. Koontz recalls some of the problems I encountered during my military experience from 1940 to 1946. From 1942 to 1945 I was the senior medical officer of the Chicago Induction Station, which was one of the largest in the country and was used as a yardstick for all induction stations. With this background I feel qualified to express my views on induction work.

I am in agreement with Dr. Koontz on the inadequacies of neuropsychiatric examination at induction stations, particularly during the early part of the emergency. The criteria for neuropsychiatric selection were abstract; the information obtained from selectees was in many cases erroneous; there were not enough neuropsychiatrists available; there was not enough time to do a complete neuropsychiatric examination and keep up with the flow of men.

After Feb. 1, 1944 neuropsychiatric examinations at the Chicago Induction Station took on a different form. By this time the neuropsychiatric department had a clear and definite point of view in regard to what was needed. It reduced the number of psychiatrists and approached the number available. The selectees were handled with dispatch and with a reasonable degree of accuracy.

In the period under discussion approximately 2,200 selectees were being examined daily. If one were to follow the existing army regulations, 44 neuropsychiatrists would be needed and they would have to spend approximately eight hours daily doing their part of the examinations. It may be surprising to know that the largest group of neuropsychiatrists mustered on any given day was 21 to 26 and that not without difficulty. Even to obtain this number it was necessary for me to make telephone calls, write letters and make personal appeals. This was a little short of the 44. However, with the new system the 21 to 26 men available were more than adequate.

The new system came into being when the state Selective Service instituted the Medical Survey Form Program. These forms became an integral part of the neuropsychiatric examination and introduced greater accuracy into our decisions.

There were a number of forms: One made out by the registrant at the time of registration which indicated any illness that the selectee may have had in the past, and the name of his attending physician or physicians. A second form to be filled out by the attending physician to verify the statements made by the selectee. A third form filled out by the school which the selectee had attended. Also an additional form available on which social service work was indicated.

The neuropsychiatric adjunct test also was used. This was a form which asked questions commonly used by the neuropsychiatrist. Each answer was given a score. A low or high score meant further neuropsychiatric examination.

Each physician in the examining line was expected to record any abnormal behavior of the selectee for the attention of the neuropsychiatrist.

With the available information at hand the system functioned as follows: The medical surveys were usually sent to the induction station on the day previous to the arrival of the selectee and were examined by a group of neuropsychiatrists in order to check for any pertinent information. All surveys were identified by the same number that the selectee would have on the following day.

On the day of the examination specially trained and qualified neuropsychiatrists acted as screeners. On their desks were the survey forms which contained the pertinent information. As the selectee approached the neuropsychiatric screener he placed the physical examination sheet on the table. This sheet contained the neuropsychiatric adjunct test and remarks relating to the neuropsychiatric examination by the examining physicians. The usual stock questions were then asked: Do you have fits? Do you faint or wet the bed? Have you ever been in an institution or hospital? Have you ever been arrested? At what grade did you leave school? Do you feel all right? The general appearance of the selectee was observed as he approached the neuropsychiatric screener, and the manner in which he delivered his papers was also noted. Any selectee who aroused the slightest doubt as to his eligibility for service, either through the survey forms or through information on the examination sheet or his behavior, was sent to an examining psychiatrist, who had a reasonable period of time to make a more complete examination. If the decision was made to reject the selectee, the entire problem was reviewed by the chief neuropsychiatrist, who had at hand all the survey forms. It was his duty to determine any possible discrepancies between the reports and the selectee's condition. Those who have been in induction stations can recognize that this method was not used in other stations.

The following question comes up: Do you feel that this type of examination is a good one? The answer is, according to office standards, that it is not. However, under existing conditions it is the best yet devised.

The next question to be asked was Did it work? The reply to this is apparent in figures obtained from the surgeon of the Sixth Service Command. The neuropsychiatric rejection rate per thousand selectees examined for the period in question was:

National rate	97.2
Detroit	145.6
Milwaukee	107
Chicago	70

Two and one-tenth per cent covered the variation among the three stations on discharges from the service for psychiatric reasons.

With low figures for neuropsychiatric rejections at the Chicago Induction Station and at least average figures for the number of discharges from the Army, one can come to the conclusion that this method is practical, more expedient and more scientific than other methods which were employed.

H. Samson Gordon, M.D., Chicago.

To the Editor:—Replying to the communication of Dr. Amos R. Koontz in the November 9 issue of The Journal, I should like to question whether there has been a larger percentage of psychiatric cases during the most recent conflict as compared with the first world war. Can Dr. Koontz furnish data to substantiate his view? We are told that there were many cases of "shell shock" in the first world war, and many of these as well as others that then escaped notice or were classified as some other disease might now have been properly diagnosed. I believe it reasonable to say that physicians as a group had better psychiatric orientation in World War II than in World War I. This must have been a large factor in recognizing additional numbers of cases. Viewing whatever data are available with these statements in mind, it would seem that the burden of proof rests on the one who states that there was a real rather than only an apparent increase in the percentage of psychiatric cases.

Apart from whether or not a relatively greater number of people were mentally ill during World War II as compared with World War I, it is difficult to see how "too much public emphasis on psychiatric conditions" could effect an increase in the rate. Dr. Koontz apparently feels that this caused an increased amount of malingering. From my own experience and from what I can learn in the literature, outright feigning

of an illness was not a common occurrence during this war. Considering men in good mental health, it is open to question not only how well but how likely they are to feign a mental illness and keep this up for a prolonged, indefinite period, lying about it and explaining it to friends and associates. It is the province of the psychiatrist to detect such behavior. Even if psychiatry as a subject were kept from the public, there would still be quite a list of conditions to choose from if one wished to malinger. The Army has felt that an understanding public will provide a more wholesome atmosphere for the returning psychiatrically disabled veteran, and this enlightenment may well far outweigh in good effects the amount lost through "educating the wrong people." Psychiatry now is a subject that can be discussed freely, and it is thereby made less awesome to the public. We would seem to be taking a big step backward to impede their discussion of it.

Concerning the "change in our political philosophy," it has been conceded that a democracy, where individual rights and freedom are stressed, is not always the most ideal environment from which to draw individuals for military service with its inhibitions on personal liberties. The fact that our government "inclined to the left of center" during the developmental years of many men in World War II may, it is granted, have had an adverse effect on the attitudes of these people. Does it not seem more reasonable to suspect from this factor a lessened rate of maladjustment because of the better economic conditions it brought during their developing years?

Dr. Koontz also seems interested in how the Army can avoid taking maladjusted individuals. His statement "Possibly a common sense evaluation of the men made by internists would be more satisfactory than the present psychiatric examination" holds some truth but is misleading. It seems to imply a lack of this ability on the part of psychiatrists, and this I cannot believe. It is conceded that a "common sense" evaluation by any one—say a college professor or a minister—not necessarily an internist, would go far toward keeping out undesirable individuals. It is very difficult to understand why Dr. Koontz considers as a remedy the elimination of the psychiatric examination. During the war I spent several months as a neuropsychiatrist in an overseas disciplinary training center, where nearly four thousand American prisoners were kept. Some of these men were quite normal; relatively few were psychotic. Psychoneurotics and mental defectives made up a good portion of the total. Perhaps the greatest number of those mentally ill were psychopathic personalities—used as the Army employs the term, to indicate a character and behavior disorder. I estimate that about half the total number of men should never have been accepted by the Army and, further, that they could have been kept out by careful psychologic and/or psychiatric examination. If this single group of prisoners had not been allowed to enter the Army, a tremendous saving should have resulted. Consider the loss of material through stealing and destruction of property, courts-martial and imprisonment costs, the often total loss in transporting the man overseas and bringing him back, lowered morale of troops, the poor impression a few such men can create for an entire unit and the trauma to the individual who was necessarily court-martialed for a purely military offense. Some of these remarks can also be applied to the neurotics who had their breakdown on arriving at an overseas port, or while training for combat, and thence were evacuated through medical channels. (I am not, of course, referring to the usual psychiatric casualty of this war, whose injuries must be as honorable as other battle wounds.) Why speak of omitting the one barrier that attempts to keep these men out of the Army?

During the most recent war many men of relative inexperience took on psychiatric work simply because there was no one else to do the job. In addition, many examinations were of necessity entirely too brief. The example of a friend of mine is typical of many, I believe. He was asked "Have you ever been arrested?" When he replied in the negative, he was told to "get back in line." This was his psychiatric examination. Two minutes seems to have been the standard time allowed for this examination in many places. The necessary corrective measures seem obvious. Each potential soldier should be given a carefully administered intelligence test, with special keys for all who fail, in order to detect malingerers. A fully trained man need not see every person, but a psychiatrist should supervise personal interviews carried on by individuals trained in personal interview work. Besides institutional records, very important would be a brief social background on the case. Many men made no mention of prison or other records of social delinquencies. In concluding, it is my feeling that a more careful and more complete psychiatric examination is the answer to the "new tactical alinement" Dr. Koontz calls for.

RICHARD W. FINNER, M.D., New Haven, Conn.

To the Editor:—I notice in the November 9 issue of THE JOURNAL that Dr. Amos R. Koontz of Baltimore in a communication on page 599 makes some inaccurate remarks on the subject of psychiatry in World War I.

In the first paragraph of his letter Dr. Koontz states that "during World War II all inductees had psychiatric examinations the purpose of which was to weed out the prepsychiatric cases. This was not true in World War I."

If Dr. Koontz will review the War Department publication The Medical Department of the United States Army in the World War (1929), volume X, Neuropsychiatry, he will be able to correct his erroneous knowledge of the subject. The Surgeon General's Office at that time, through the efforts of Col. Pearce Bailey, had a well organized group making psychiatric examinations of inductees. I think neuropsychiatric officers were well distributed at the various cantonments. I have personal knowledge of the work done because I was a lieutenant in the Medical Corps, assigned to psychiatric work at a recruit depot. The work was exclusively neuropsychiatric, and we made reports direct to the Surgeon General's Office, Neuropsychiatric Division.

I refer to chapter 4, page 57, of the War Department history mentioned, which discusses at length "detection and elimination of individuals with nervous or mental disease."

CLIFFORD W. MACK, M.D., Livermore, Calif.
Medical Director, Livermore Sanitarium.

GREETINGS FROM AUSTRALIA

To the Editor:—As we approach the season of thanksgiving and memories, we turn in appreciation to those of our colleagues from the United States who were in our country during the years 1942-1945.

In all our states where they were stationed these men and women have left memories of work done—kindliness and wholehearted cooperation which will never be effaced.

My own committee naturally had much to do with them and we find that this is a season when we should like them to know that we have not forgotten their material and intellectual friendship and cooperation.

Knowing that THE JOURNAL is almost universally read, I write this in the hope that these many hundreds of doctors in all the services may know that their work for good will and medical science still survives.

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Chairman, Postgraduate Medical Education Committee.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Malpractice: Use of Unsterile Instruments for Removal of Cyst.—The plaintiff sued for damages allegedly caused by the negligence of the defendant physician. From an adverse judgment the defendant appealed to the Supreme Court of Oregon.

The defendant was engaged to remove a cyst from the back of the plaintiff's wrist. To facilitate the operation, which took about an hour and a half, the plaintiff was placed on an examination table with her arm resting on a board extending out from one side. The instruments which the defendant had not yet used rested on a nearby table; those which he had used were placed on the board on which the plaintiff's arm rested and picked up again as the defendant needed them. Both the arm board and the table were covered with a sterile towel, but at no time during the operation did the defendant wear rubber gloves, a face mask or a surgical robe. Following the operation the plaintiff went home. Two days later her wrist began to swell and discharge, so she entered the hospital, where she remained for about three weeks, during which time, while under the continuous treatment of the defendant, the wrist became progressively worse. Plaintiff was then removed to a hospital at Olympia, Wash., where she was treated by a Dr. F. H. Hartung. At the trial Dr. Hartung testified that there was no infection in the cyst itself but that the infection was the type that comes from either the use of unsterile instruments or incomplete antisepsis in preparing for the surgical procedure. He testified further:

> Q. Doctor, assuming that the plaintiff went to a doctor for treatment and removal of a cyst on the left wrist and that the doctor undertook to perform the operation and give the treatment in his office and that the instruments that were used for the operation were lying out in the open on a table for a period of one and a half hours or more, would you say those instruments would have remained sterile all that time? A. Definitely not.
>
> Q. And assuming further that a doctor in the performance of the treatment and operation had no rubber gloves or other covering of the hands and handled the instruments from time to time during that period of one and a half hours or more, would you say they would be sterile? A. Absolutely no.
>
> Q. Would you say that that would be a proper practice under any circumstances? A. No, sir.
>
> Q. Doctor, is it a relatively easy matter to keep instruments for operative purposes in a sterile condition even while using them in and about the office? A. Yes, sir.

Dr. Hartung also stated that in ordinary operative procedure the instruments are never uncovered until the operation begins. Even under the most rigid conditions, instruments once uncovered will not remain sterile.

There was evidence on behalf of the defendant that instruments which he used were sterile to start with and that, while not being used during the course of the operation, they were placed on sterile towels. It was also shown that he used due care in the actual performance of the operation.

In the opinion of the court, the evidence was sufficient to justify submission of the cause to the jury. It was not incumbent on the plaintiff, said the Supreme Court, to prove by direct and positive evidence that the infection came from the use of nonsterile instruments. Infection is of such a subtle nature that its cause can be determined with only a reasonable degree of certainty. Defendant was operating in a noninfected area. According to the plaintiff's family physician the infection did not come from the cyst itself but from the kind of germ that could come from unclean instruments. Defendant testified that, in his opinion, the infection came from the blood stream but gave no reason therefor except that based on what some nurse had told him. He had not made any blood tests. From the evidence relative to the exposure of the instruments for a period of one and one-half hours and the manner in which they were handled, we think, continued the court, it is a reasonable inference that the instruments used were not sterile and that the failure of the defendant to exercise due care resulted in the introduction of a germ causing the infection. We have no hesitancy in holding that the use of nonsterile instruments is evidence of negligence, the court concluded. Accordingly the judgment in favor of the plaintiff was affirmed.—*Clemens v. Smith, 134 P. (2d) 424 (Ore., 1943).*

Medical Practice Acts: Revocation of License for Abortion; Necessity of Proving Pregnancy.—After a hearing on charges of unprofessional conduct, the defendant Board of Medical Examiners of the State of California revoked the petitioner's license to practice as a physician and surgeon. The petitioner then filed a suit for a writ of mandate to compel the board to reinstate him. From a judgment of the trial court denying the writ, the petitioner appealed to the district court of appeals, second district, division 2, California.

Section 2377 of that portion of the business and professions code relating to physicians provides:

> The procuring or aiding or abetting or attempting or agreeing or offering to procure a criminal abortion constitutes unprofessional conduct within the meaning of this chapter.

On the basis of this section the petitioner was charged with unprofessional conduct in that he had performed abortions on certain named females. The petitioner urged that the evidence was insufficient to establish that the women in question were pregnant and relied on a prior California case. The court pointed out, however, that the prior case was decided when section 274 of the penal code provided that one is guilty of a felony "who provides, supplies, or administers to any pregnant woman, or procures any such woman to take any medicine, drug, or substance, or uses or employs any instrument or other means whatever, with intent thereby to procure the miscarriage of such woman, unless the same is necessary to preserve her life. . . ." In 1935 the legislature amended section 274 by deleting the word "pregnant" in the first clause. Proof of pregnancy was therefore no longer required to establish guilt of the crime commonly called abortion. Such has been the ruling in a number of jurisdictions having similar statutes. The court of appeals said that the trial court was justified in concluding that the petitioner committed certain prohibited acts with the intent to cause a miscarriage. One of the women involved was in normal health before the date in question, and there is no evidence that the acts of petitioner were necessary to preserve her life. Accordingly the court of appeals concluded that the evidence clearly sustained the finding that the petitioner was guilty of unprofessional conduct within the meaning of the Business and Professions Code. The judgment of the board revoking the petitioner's license was therefore affirmed.—*Rinker v. State Board of Medical Examiners of Department of Professional and Vocational Standards, 138 P. (2d) 403 (Calif., 1943).*

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

BOARDS OF MEDICAL EXAMINERS BOARDS OF EXAMINERS IN THE BASIC SCIENCES

Examinations of the boards of medical examiners and boards of examiners in the basic sciences were published in THE JOURNAL, Dec. 14, page 947.

NATIONAL BOARD OF MEDICAL EXAMINERS

NATIONAL BOARD OF MEDICAL EXAMINERS: *Part II.* Dec. 16-17. *Part III.* Chicago, Jan. 9-11. Sec., Mr. Everett S. Elwood, 225 S. 15th St., Philadelphia 2.

EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Oral.* Los Angeles, 2d week in April. Sec., Dr. P. M. Wood, 745 Fifth Ave., New York.

AMERICAN BOARD OF INTERNAL MEDICINE: *Oral.* Chicago, Feb. 12-14. Final date for filing application is Jan. 1, 1947. *Written.* March 17. Asst. Sec., Dr. W. A. Werrell, 1 W. Main St., Madison 3, Wis.

AMERICAN BOARD OF NEUROLOGICAL SURGERY. *Oral.* Examination to be given during the Summer. Applications for examination will be accepted until Feb. 15. Sec., Dr. P. C. Bucy, 912 S. Wood St., Chicago.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY: *Part II.* Pittsburgh. June 1-7. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh.

AMERICAN BOARD OF OPHTHALMOLOGY: *Oral. All Groups. Parts I and II.* Chicago, October 1947. Final date for filing application is March 1. Sec., Dr. S. J. Beach, 56 Ivie Rd., Cape Cottage, Me.

AMERICAN BOARD OF OTOLARYNGOLOGY: *Oral.* St. Louis, April 16-19. Chicago, Oct. 7-11. Sec., Dr. D. M. Lierle, University Hospitals, Iowa City, Ia.

Current Medical Literature

AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in continental United States and Canada for a period of three days. Three journals may be borrowed at a time. Periodicals are available from 1936 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied with stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

American J. Digestive Diseases, Fort Wayne, Ind.

13:275-310 (Sept.) 1946

Differences in Excretion of Hippuric Acid and Glucuronates After Ingestion of Sodium Benzoate and Benzoic Acid. I. Snapper and A. Saltzman.—p. 275.
Roentgenologic Evidence of Appendical Abscesses. A. Dallos.—p. 279.
Fasting Gastric Contents as Index of Gastric Functioning. F. Hoelzel. —p. 284.
Gastroscopy as Aid to Diagnosis of Gastric Disorders. A. X. Rossien. —p. 290.
Observations on Percussion of Liver in Acute Infectious Hepatitis. J. I. Goodman.—p. 294.
Idiopathic and Psychogenic Incontinentia Recti. A. Juda.—p. 296.
Causes and Mechanisms of Abdominal Pain. P. J. Schutz.—p. 299.

American Journal of Diseases of Children, Chicago

72:251-370 (Sept.) 1946

Blood Amino Nitrogen Levels: Changes in Blood Amino Nitrogen Levels Following Ingestion of Proteins and of Protein Hydrolysate in Infants with Normal and with Deficient Pancreatic Function. C. D. West, J. L. Wilson and Ruth Eyles.—p. 251.
Criteria for Recognition of Neuroses in Children: Guide for Pediatrician. A. Alpert.—p. 274.
Treatment of Impetigo Neonatorum with Minimal Doses of Penicillin. C. A. Aldrich and C. A. Holmes.—p. 279.
*Clinical Applications of Chick Embryo Cultures: I. Primary Diagnosis of Meningitis and Study of Spinal Fluid in Meningococcemia Without Meningitis; II. In Vivo Streptomycin Sensitivity Test. C. H. Kempe, E. B. Shaw and H. K. Silver.—p. 281.
Adenomas of Large Intestine in Children. E. B. Helwig.—p. 289.
*Bronchiectasis Following Primary Tuberculosis. Edna M. Jones, W. M. Peck and H. S. Willis.—p. 296.
Periarteritis Nodosa Complicating Scarlet Fever. A. R. Peale, N. Gildersleeve and P. F. Lucchesi.—p. 310.

Chick Embryo Cultures.—Kempe and his associates examined the spinal fluid of more than 100 patients with suspected meningitis, poliomyelitis or encephalitis. Cultures revealed purulent meningitis in 51 of these patients. All fluids were cultured by routine methods on blood agar, Avery's broth and Loeffler's medium for use in slants; agar plates were incubated under reduced oxygen tension as indicated. Simultaneously, each spinal fluid was dropped on the chorioallantoic membrane of two chick embryos. Culturing of spinal fluid on the three routine laboratory mediums alone resulted in an etiologic diagnosis in 41 of 51 cases, or 80 per cent. The chick embryo culture revealed the causative organism in 49 out of 51 cases, or 96 per cent. The rapidity of the etiologic diagnosis was increased many fold by the chick embryo method. This permitted the institution of specific therapy in a few hours, as compared with the several days which frequently must elapse when conventional methods of culture are used. By using chick embryo cultures it is possible to demonstrate the presence of organisms in spinal fluid when the latter shows no alteration in its cytologic or chemical nature. An in vivo streptomycin sensitivity test employing the chick embryo has been devised, and the streptomycin sensitivity of a number of organisms has been determined.

Bronchiectasis Following Primary Tuberculosis.—Jones and her associates present observations on tuberculous children in the Detroit Municipal Tuberculosis Sanatorium. Pulmonary tuberculosis in children is frequently complicated by tuberculosis of a bronchus. The bronchial disease may be present as granulomatous tissue (tuberculoma), as ulcer or merely as edema and inflammation. Tuberculous tracheobronchial lymph nodes often encroach on the lumen by pressing and at times eroding the bronchial wall. Such bronchial lesions are frequently associated with obstructive pneumonitis. A number of these children were recalled for evaluation of their present condition and especially for a survey of their bronchial system by bronchography. Bronchi of 37 children have been surveyed in this manner about three and one-half years after the pulmonary lesions had cleared. Iodized poppyseed oil 40 per cent could not be placed in the previously involved areas in 3 children. Obvious signs of bronchiectasis were present in 24 of 34, or 70 per cent. Pulmonary tuberculosis in children appears to be a common cause of bronchiectasis. Few of the 24 children with bronchiectasis presented conspicuous symptoms. Pneumonectomy was advised for 1 child.

American Journal of Medical Sciences, Philadelphia

212:129-250 (Aug.) 1946

Leukocytic Response of Patients with Experimentally Induced Infectious Hepatitis. W. P. Havens Jr. and Ruth E. Marck.—p. 129.
Retroperitoneal Splenomegaly: Occurrence in Case of Leukopenic Plasma Cell Leukemia. J. W. Bills and O. H. P. Pepper.—p. 139.
Modified Cephalin Cholesterol Test (Hanger) in Study of Hepatic Disease. A. W. Frisch and J. J. Quilligan Jr.—p. 143.
*Effect of Prostigmine (Neostigmine) on Muscle Spasm of Rheumatoid Arthritis. V. G. Balboni, J. L. Hollander and D. M. Kydd.—p. 153.
Melituria in Healthy American Men, with Special Reference to Transitory Glycosuria. I. J. Wolman.—p. 159.
Reaction of Vessels of Mesentery and Intestine to Angiotonin and Renin. R. G. Abell and I. H. Page.—p. 166.
Sulfapyrazine—Its Use in Prophylaxis of Respiratory Disease. R. H. Broh-Kahn and G. Erdman.—p. 170.
*Vitamin Levels in Pernicious Anemia. D. Cayer, J. M. Ruffin and W. A. Perlzweig.—p. 179.
Use of Histamine Antagonist Beta-Dimethylaminethyl Benzhydryl Ether Hydrochloride in Allergic Disease. A. S. Friedlaender.—p. 185.
Capillary Microscopy, with Special Reference to Capillary Petechiae. E. Davis.—p. 192.
Clinical and Laboratory Studies of Liver Function in Therapeutic Malaria. P. M. Glenn, L. I. Kaplan, H. S. Read and F. T. Becker. —p. 197.
Effect of Room Temperature on Sedimentation Rate of Red Blood Cells of Man. W. B. Wartman.—p. 207.
Aplastic Anemia in Soldiers Treated with Atabrine (Quinacrine). R. P. Custer.—p. 211.
Temporal Arteritis and Loss of Vision. H. P. Wagener.—p. 225.
Pituitary Diabetes. F. D. W. Lukens.—p. 229.
Organizing Hemothorax—Clinical Entity. R. T. Crowley.—p. 241.

Effect of Neostigmine in Rheumatoid Arthritis.—Balboni and his associates administered neostigmine to 23 patients with active rheumatoid arthritis. All patients were hospitalized during the period of neostigmine therapy. Thirteen of the patients had rheumatoid arthritis with involvement of various peripheral joints, 8 had rheumatoid spondylitis with involvement of the sacroiliac joints and spine, and 2 had involvement of both the spine and the sacroiliac joints as well as peripheral joints. The neostigmine was given in doses up to the limit of tolerance with the aim of relieving the muscle spasm associated with rheumatoid arthritis. A satisfactory therapeutic response was not obtained in any case. Only 2 cases showed appreciable decrease in muscle spasm, and even in 1 of these the effect was inconsistent, as the spasm about other affected joints coincidentally increased. The second case had already started into spontaneous remission. Neostigmine caused unpleasant and often alarming reactions in 14 of the 23 cases studied. The authors do not recommend neostigmine in the treatment of rheumatoid arthritis.

Vitamin Levels in Pernicious Anemia.—Cayer and his associates made vitamin determinations on 8 patients with pernicious anemia. Comparative studies were made on 25 patients diagnosed as having a B complex deficiency and on 30 medical students who were regarded as healthy. The vitamin levels in the group having a B complex deficiency closely paralleled those of the pernicious anemia patients. There was no apparent correlation between the degree of anemia and the vitamin levels in either group. The levels of vitamin A and carotene in general reflected the nutrition of the group and, although lower than those of controls, were within normal limits. This is in striking contrast to sprue, in which a profound depletion of vitamin A and carotene in the plasma was found. The blood levels of vitamin C were essentially normal. Although the group studied is small, the definite lowering of nicotinic acid, thiamine and riboflavin levels in these patients cannot be over-

looked. The occasional reports of improvement of oral lesions on B complex therapy alone is not surprising. The results of this study would justify the administration of B complex vitamins to patients with pernicious anemia if liver extract alone fails to produce a satisfactory response.

American Journal of Ophthalmology, Cincinnati

29:1071-1214 (Sept.) 1946

Treatment of Glaucoma with Di-Isopropyl Fluorophosphate. P. R. McDonald.—p. 1071.
Indications and Contraindications for Keratoplasty and Keratectomies. R. Castroviejo.—p. 1081.
Arsenical Eye Burns: Case Report. G. I. Uhde.—p. 1090.
Device for Group Demonstration of Astigmatism Tests. W. H. Crisp.—p. 1094.
Cultivation of Human Tumor in Anterior Chamber of Guinea Pig's Eye. E. M. Blake.—p. 1098.
*Corneal Ulcer Treated with Streptomycin. N. F. Alberstadt and A. H. Price.—p. 1106.
Legal Ophthalmology. J. H. Hinshaw.—p. 1112.
General Anesthesia in Ophthalmic Surgery. M. Bien.—p. 1119.
Keratoconjunctivitis Sicca: Sequela to Purulent Erythema Exudativum Multiforme (Stevens-Johnson's Disease). J. M. Richards and H. H. Romaine.—p. 1121.
Comparative Study of Sutures Employed in Surgery of Extraocular Muscles. C. Berens and H. H. Romaine.—p. 1126.
Infections and Reflex Disorders of Eye from Dental Affections. D. Kravitz.—p. 1135.
Conjunctivitis Associated with Erythema Multiforme Bullosa. E. E. Grossmann.—p. 1146.

Streptomycin in Corneal Ulcer.—Nine patients with corneal ulcer were given streptomycin as an adjuvant to the routine treatment with atropine sulfate, hot compresses and, occasionally, typhoid vaccine. Streptomycin hydrochloride was used in a concentration of 10,000 units in each cubic centimeter of isotonic solution of sodium chloride. Two drops were placed in the affected eye every two hours day and night. Streptomycin was found to be a useful adjuvant to the treatment of corneal ulcers.

American Journal of Pathology, Ann Arbor, Mich.

22:867-1080 (Sept.) 1946

*Fulminant Form of Epidemic Hepatitis. B. Lucké and T. Mallory.—p. 867.
Bone Infarcts: Case Report with Autopsy Findings. S. C. Kahlstrom and D. B. Phemister.—p. 947.
Pathology of Japanese B Encephalitis. H. M. Zimmerman.—p. 965.
Human Salmonellosis Due to Salmonella Senftenberg. T. J. Curphey.—p. 993.
*Arterial Calcification in Infancy, with Special Reference to Coronary Arteries. W. A. Stryker.—p. 1007.
Skeletal Changes Caused by Combined Administration of Thyroxin and Estrogen. M. Silberberg and Ruth Silberberg.—p. 1033.
Leiomyoma of Ventral Ligament of Oviduct of Chicken. N. M. Nelson.—p. 1047.
Occurrence of Neoplasms in Liver, Lungs and Other Tissues of Rats as Result of Prolonged Choline Deficiency. D. H. Copeland and W. D. Salmon.—p. 1059.

Fulminant Form of Epidemic Hepatitis.—The present series includes 29 examples of the endemic and 72 of the epidemic variant of "spontaneous" hepatitis, and 77 cases presumed to be "homologous serum hepatitis" following transfusions of blood or blood derivatives. This study is based principally on 94 cases in which the clinical course did not exceed nine days. Thirty-nine others with a duration of from ten to nineteen days supplied additional information, for many of them presented lesions indistinguishable from those of the more fulminant form. The subacute cases clinically and pathologically resemble those of the 1942 epidemic. The average mortality during the period covered by this study was 0.3 per cent. Pathologically, lesions other than those in the liver were relatively slight; the changes found in "spontaneous" and in "inoculation" hepatitis were in every respect similar. Microscopically, the destructive process was limited specifically to liver cells. The inflammatory infiltration was most conspicuous at the lobular peripheries. There was often disparity between the apparent age of the lesions and the duration of symptoms. The pathologic changes in the liver were in many instances obviously older than the clinical history suggested. The factors responsible for the fulminant form are difficult to assess. It is suggested that more or less interrelated host factors, such as fatigue, trauma and nutritional disturbances, rather than the strain or the amount of the infectious agent, play a dominant part.

Calcification of Coronary Arteries in Infancy.—Stryker says that, unlike occlusive lesions of the coronary arteries of older children and adults, which may result from any one of several diseases, occlusion of these arteries in infants is nearly always due to a single type of arterial disease. This lesion consists in calcification of the wall of the artery with fibroblastic proliferation of the intima. The intimal proliferation may eventually cause complete or nearly complete obliteration of the lumen. Fifteen cases of calcification of the coronary arterial wall with intimal proliferation in infants have been previously reported. In some instances this involvement has been the cause of death; in others, similar involvement of other vessels has been fatal. The ages of the 15 patients ranged from 1 day to 27 months. Seven were boys and 8 were girls. In the Department of Pathology of the University of Michigan the hearts of 4 infants with calcification of the coronary arteries have been examined. A fifth case was seen in the pathologic service of the Providence Hospital, Detroit.

Am. J. Roentgenol. & Rad. Therapy, Springfield, Ill.

56:279-418 (Sept.) 1946

Optochiasmatic Arachnoiditis. E. P. Pendergrass and C. R. Perryman.—p. 279.
Some Observations Concerning Hypophysial Fossa. G. W. Heublein.—p. 299.
Roentgenographic Appearance of Falx Cerebri. E. G. Robertson.—p. 320.
*Primary Atypical Pneumonia: Disease of Segmental Distribution. W. E. Crysler.—p. 324.
Roentgenologic Studies on Effect of Synthetic Folic Acid on Gastrointestinal Tract of Patients with Tropical Sprue. R. L. Hernandez Beguerie and T. D. Spies.—p. 337.
Reticuloendotheliosis, with Report of 2 Cases. A. E. Imler.—p. 343.
Roentgenologic Examination of Power of Resistance of Tracheal Wall: Important Sign in Treatment of Tracheal Stenosis. M. Sgalitzer.—p. 355.
New Medium for Cystourethrography. F. O. Coe and P. S. Arthur.—p. 361.
Treatment of Peritendinitis Calcarea of Shoulder Joint by Roentgen Irradiation: Report of 100 Cases. I. Klein.—p. 366.
Simplification of Tissue Dose Estimation in Roentgen Therapy. Anna Hamann.—p. 376.

Primary Atypical Pneumonia.—Crysler reports experience with the x-ray examination of the chest in the erect position during suspended deep inspiration in approximately 1,000 patients with definite or clinically suspected atypical pneumonia. In the established case, the x-ray opacity produced by atypical pneumonia is homogeneous and translucent; early changes cause blurring of the bronchopulmonary markings; resolution is almost in reverse order, structural intensification being the last sign of previous parenchymal infiltration to disappear.

Annals of Surgery, Philadelphia

124:479-606 (Sept.) 1946

Perforated Gastroduodenal Ulcers: Study of 166 Cases. H. B. Olson and M. Norgore.—p. 479.
Congenital Stenosis of Small Intestine, with Retention of Nonpenetrating Foreign Bodies: Report of 2 Cases. M. Williams.—p. 492.
*Familial Diverticulosis of Colon: Report of 7 Cases in one Family of 9 Persons. H. L. Schlotthauer.—p. 497.
Carcinoma of Meckel's Diverticulum: Case Report. K. J. Costich and W. L. McNamara.—p. 503.
Enterogenous Cysts: Report of Case Involving Rectum. B. S. Custer, A. Kellner and H. M. Escue.—p. 508.
Liposarcoma of Mesentery. Ruth B. Benedict.—p. 519.
Splenectomy: Removal of Spleen Weighing 5,450 Grams. J. L. Madden and C. H. Appleberry.—p. 524.
Surgical Treatment for Dysphagia Lusoria. R. E. Gross.—p. 532.
Pulmonary Actinomycosis: Its Treatment by Pulmonary Resection in Conjunction with Chemotherapy: Report of 2 Cases. E. B. Kay.—p. 535.
Management of Injuries to Stensen's Duct. S. C. Newman and D. B. Seabrook.—p. 544.
Mastectomy for Gynecomastia Through Semicircular Intra-Areolar Incision. J. P. Webster.—p. 557.
Subtrochanteric Osteotomy for Ununited Fracture Neck of Femur. K. Speed.—p. 576.
Incisions in Surgery of Aneurysms, with Special Reference to Exploration in Antecubital and Popliteal Fossae. H. B. Shumacker.—p. 586.
Cross Nerve Anastomosis in Man. A. R. Sadr.—p. 599.

Familial Diverticulosis of Colon.—Schlotthauer reports the occurrence of diverticulosis of the colon in 7 brothers. After 2 members of this group had developed symptoms referable to the colon and each was found to have diverticulosis involving the entire large bowel, a study was made of the remaining

brothers and sisters. Each of these was requested to fill out a comprehensive history form pertaining to the gastrointestinal tract. Roentgenograms of the colon were obtained in each case after the administration of a contrast enema or after the ingestion of contrast mediums. These persons reside in widely separated parts of the Pacific coast area, and the roentgenograms were made in different laboratories and under varying conditions. In the 2 sisters of these 7 brothers evidence of diverticulosis could not be found. The author thinks that heredity should be included as a major causative factor in the etiology of diverticulosis of the colon.

Archives of Ophthalmology, Chicago

36:263-386 (Sept.) 1946

Selection of Color Vision Tests for Army Air Forces: Summary of Studies Made at Army Air Forces School of Aviation Medicine. Louise L. Sloan.—p. 263.

Ophthalmic Penicillin Ointments. L. von Sallmann, Anne E. Grosso and Mary Glyde Marsh.—p. 284.

Effects of Atropine Sulfate, Methylatropine Nitrate (Metropine) and Homatropine Hydrobromide on Adult Human Eyes. A. V. Wolf and H. C. Hodge.—p. 293.

Night Vision: II. Comparison and Critique of Various Procedures Used for Night Vision Testing. W. J. Holmes.—p. 302.

*Reduction of Reflections. R. Graham.—p. 315.

Preservation of Corneal Tissue for Transplantation. C. I. Thomas. —p. 321.

Metabolism of Retina. A. C. Krause and J. A. Sibley.—p. 328.

Reduction of Reflections.—Graham points out that there s a fair proportion of patients who are consciously annoyed y reflections from their glasses and who are greatly relieved vhen these are substantially reduced. Reflections can conceal he eyes of the wearer from any one looking at him. To ministers, teachers and all who wear glasses when appearing efore groups of people it is a serious impediment. Graham hinks that of all the technical advances to come out of the ecent war, probably the most significant optically is the oating of lenses with reflection reducing films. The process itilized in optical lenses for the armed forces consists in lepositing a thin film of magnesium fluoride on optical surfaces n high vacuum and under considerable heat. Coating available oday is durable, if not permanent, and reduces reflections ubstantially, although it does not extinguish them or make he glasses invisible. Coating is a new and important development which has reached a state of real usefulness.

Arizona Medicine, Phoenix

3:271-332 (Sept.) 1946

Management of Pyogenic Meningitis in Infants and Children. G. W. Salmon, J. H. Park Jr. and Laura Bickel.—p. 293.

Coarctation of Aorta. G. S. Enfield.—p. 302.

Studies on Effect of Diluting Fluids on Serologic Titers: I. Comparison of Normal Saline, 2.5 Per Cent Saline and Pooled Negative Sera as Diluting Agents. E. L. Breazeale and T. R. Reusser.—p. 304.

D. H. E. 45 (Dihydroergotamine), New Drug in Treatment of Migraine: Case. E. J. Gotthelf.—p. 307.

Bulletin New York Academy of Medicine, New York

22:451-500 (Sept.) 1946

Management of Blood Preservation and Blood Substitutes. S. H. Armstrong.—p. 451.

Planned Convalescence. H. A. Rusk.—p. 465.

22:501-560 (Oct.) 1946

General Pathology of Tumors of Endocrine Glands. H. T. Karsner. —p. 503.

Recent Advances in Use of Curare in Clinical Practice. E. B. Schlesinger.—p. 520.

Summary of Present Status of Our Knowledge of Factors Controlling Blood Pressure. G. A. Wolf Jr.—p. 530.

Apical Systolic Murmurs in Incipient Rheumatic Heart Disease. A. M. Master.—p. 535.

Iowa State Medical Society Journal, Des Moines

36:385-418 (Sept.) 1946

Infectious (Viral) Hepatitis. W. S. Middleton.—p. 385.

Treatment of Burns. H. I. Down.—p. 390.

Papilledema. P. J. Leinfelder.—p. 394.

Principles of Military Surgery Applicable to Civil Practice, with Especial Reference to Acute Traumatic Lesions. G. S. Rost.—p. 396.

Eosinophilic Granuloma of Bone, with Report of Case. J. T. Bakody. —p. 397.

Journal of Immunology, Baltimore

53:303-410 (Aug.) 1946

Increasing Yield and Potency of Typhus Vaccine Prepared from Infected Yolk Sacs. V. Groupe, Clara Nigg and J. O. MacFarlane.—p. 303.

Allergenic and Anaphylactogenic Properties of Vaccines Prepared from Embryonic Tissues of Developing Chicks: I. Skin Sensitivity Following Subcutaneous Inoculation of Typhus Vaccines in Man. H. Plotz.—p. 315.

Id.: II. Anaphylactogenic Properties of Typhus Fever Vaccines and Equine Encephalomyelitic Vaccines. E. J. Coulson and H. Stevens. —p. 321.

Id.: III. Study to Determine Whether Chick Embryo Yolk Sac Vaccines Contain Sufficient Egg Proteins to Cause Severe Systemic Reactions if Given to Egg Sensitive Individuals. A. Stull.—p. 343.

Studies on Physiology of Anaphylactic Shock: II. Reactivity of Isolated Rat Intestine to Antigen, to Histamine and to Acetylcholine. A. Hochwald and F. M. Rackemann.—p. 355.

Endotoxic Factors of Rickettsia Prowazeki and Their Immunologic Relationship to Endotoxins of Other Gram Negative Micro-Organisms. L. Olitzki, J. W. Czaczkes and A. Kuzenok.—p. 365.

Chemotherapy of Experimental Anthrax Infections. E. S. Miller, E. B. Scott, H. A. Noe, S. H. Madin and T. F. Henley.—p. 371.

Immunologic Studies in Rheumatic Fever: II. Antistreptolysin Patterns in Rheumatic Children. L. M. Taran, J. M. Jablon and Helen N. Weyr.—p. 381.

Studies on Ragweed Pollen Sensitization in Rabbits and Guinea Pigs. Anna M. Kulka and Dorothy Hirsch.—p. 391.

Journal-Lancet, Minneapolis

66:277-318 (Sept.) 1946

Sulfonamides and Antibiotics in Prevention and Treatment of Infectious Diseases. W. W. Spink.—p. 277.

Graduate Student and Research. O. H. Wangensteen.—p. 284.

Anopheline Mosquitoes in Montana. D. J. Pletsch.—p. 289.

Journal of Urology, Baltimore

56:271-398 (Sept.) 1946

*Use of Fibrinogen Coagulum in Pyelolithotomy. J. E. Dees.—p. 271.

Intravenous Urography in Acute Renal Colic. T. J. Florence, W. S. Howland and H. S. Weens.—p. 284.

Hydronephrosis in Soldiers Due to Obstruction at Ureteropelvic Junction. H. R. Newman.—p. 292.

Association of Hypernephroma with Amyloidosis of Kidney. A. Hyman and H. E. Leiter.—p. 303.

Unique Case of Submucosal Epithelial Nests in Ureter and Renal Pelvis. H. S. Everett and G. J. Wayburn.—p. 310.

Instrumental Perforation of Ureter. F. S. Howard.—p. 319.

Ectopic Ureter Draining into Seminal Vesicle. L. W. Riba, C. J. Schmidlapp and N. L. Bosworth.—p. 332.

Bladder Biopsy: Evaluation of Cystoscopic Procedure. M. M. Melicow.—p. 339.

New Bladder Evacuator. L. J. Kennedy and P. M. Cornwell.—p. 349.

Diverticula of Prostate. E. Hock.—p. 353.

Neoplasms of Testis. O. Auerbach, O. A. Brines and A. Yaguda. —p. 368.

Oxidized Cellulose (Absorbable Hemostatic Gauze; Cellulosic Acid): Its Use in Genitourinary Surgery. G. W. Fish.—p. 375.

Cyst of Accessory Genital Tract: Case Report, with a Review of Literature. A. J. Lund and M. M. Cummings.—p. 383.

Urinary Extravasation: Study of 60 Cases. W. S. Howland.—p. 387.

Ditopax—New Excretory Urographic Medium: Clinical Report on 1,280 Injections. W. M. Kearns, H. Hefke and S. A. Morton.—p. 392.

Fibrinogen Coagulum in Pyelolithotomy.—Dees says that the routine use of x-rays in the postoperative period reveals the high incidence of incomplete removal of renal calculi. In an effort to insure the complete removal of all free stones from the pelvis of the kidney, as well as to reduce to a minimum the trauma to which the kidney is subjected at the time of operation, a new technic for pyelolithotomy has been developed. At open operation solutions of human fibrinogen and thrombin are simultaneously injected into the renal pelvis, filling it completely. A firm tenacious coagulum results which forms a perfect mold of the cavity of the pelvis, regardless of its configuration, and within this clot are incorporated all free stones. Four minutes after injection of the fluid material the coagulum is removed through the usual pyelotomy incision. All free stones within the pelvis should be removed, incorporated within the clot. The results were perfect in 28 cases, partially satisfactory in 6 cases and a failure in 2 cases. Five additional cases were failures because of technical reasons.

Medicine, Baltimore

25:215-342 (Sept.) 1946

Clinical and Therapeutic Aspects of Conflagration Injuries to Respiratory Tract Sustained by Victims of Cocoanut Grove Disaster. M. Finland, C. S. Davidson and S. M. Levenson.—p. 215.

Coronary Circulation. O. D. Ratnoff and M. Plotz.—p. 285.

Military Surgeon, Washington, D. C.

99:177-272 (Sept.) 1945

Acute Myocardial Infarction in Men Below Forty. F. Steigmann and F. Glassner.—p. 177.
Management of Shock Ward. R. Birchall.—p. 181.
Treatment of Fracture Dislocations of Proximal Interphalangeal Joints of Fingers. H. A. Schulze.—p. 190.
Otomycosis: Some Remarks Concerning Its Diagnosis and Treatment. W. D. Gill.—p. 192.
Bismuth Gingivostomatitis. I. W. Scopp.—p. 196.
Fractures of Clavicle in Military Trainees. R. E. Van DeMark and M. C. Goodman.—p. 197.
Immune Serum Globulin (Gamma Globulin) in Prophylaxis of Mumps Orchitis. S. Candel.—p. 199.
Sclerosing Solution in Treatment of Pilonidal Cysts. J. C. Dunn. —p. 202.
Medical Air Evacuation in Army Air Forces. D. Ginsburg.—p. 204.
Cervical Murmurs with Normal Hearts. H. A. Arkless.—p. 210.
Voluntary Nystagmus: Case Report. J. M. Schneck.—p. 211.
Responsibilities of an Autopsy Surgeon. F. K. Mostofi.—p. 212.
Appraisal of Rapid Killing Power of High Velocity Bullets. H. Lamport, A. A. Ward, and M. G. Schorr.—p. 215.
Veterans Education and Training. O. N. Bradley.—p. 219.
Doctors at Arms: James McHenry—Secretary to Chief. J. M. Phalen. —p. 223.

Nebraska State Medical Journal, Lincoln

31:345-388 (Sept.) 1946

Management of Acute Intestinal Obstruction. R. Woodruff.—p. 348.
Analytic Survey of Goiter Management, University of Nebraska Hospital, 1935-1944. H. H. Davis.—p. 355.

Symposium on Bleeding from Alimentary Tract

Systemic Causes of Gastrointestinal Hemorrhages. A. S. Rubnitz. —p. 361.
Esophageal and Gastric Hemorrhage. J. E. Courtney.—p. 365.
Hemorrhage from Small Bowel. M. W. Barry.—p. 367.
Vincent's Anginal Infection of Throat. J. C. Davis.—p. 370.

New England Journal of Medicine, Boston

235:347-398 (Sept. 12) 1946

*Acute Myocardial Infarction: Study of 100 Consecutive Cases. W. N. Chambers.—p. 347.
Use of Sulfadiazine in Presence of Hematuria. J. H. Nicholson. —p. 353.
*Use of Ether in Narcoanalysis of Patients with War Neuroses. H. H. Brewster.—p. 357.
Enhancing the Riboflavin Content of Mare's Milk. A. D. Holmes. —p. 360.
Gold Therapy in Rheumatoid Arthritis. C. L. Short, W. W. Beckman and W. Bauer.—p. 362.
Adenoma of Bronchus.—p. 390.
Double Intussusception and Volvulus of Ileum, Led by Adenomatous Polyp.—p. 393.

Acute Myocardial Infarction.—Chambers presents clinical observations on 100 consecutive cases of acute myocardial infarction observed at St. Luke's Hospital in New York City. The older the patient at the time of the initial attack, the more serious was the prognosis. The incidence was higher among men than among women, but mortality was higher among women, whose attacks tended to occur later in life. The mortality was higher in patients with a history of cardiac decompensation. Long standing angina or dyspnea had no influence on the prognosis. Although pain was an outstanding complaint, it was not present in 21 per cent of the cases.

Ether in Psychotherapy.—The patients treated by Brewster were combat soldiers who had spent from two to six weeks in other hospitals en route. Some patients had been given pentothal at the forward hospitals; other patients had received sedation and rest. The symptoms were anxiety and tremulousness, sensitivity to noise, anorexia, recurrent terrifying dreams and insomnia. On the day after admission the patient received an ether interview, which was followed by two days of light sedation during the afternoon and night and insulin therapy in the morning. During the next three days the patient received insulin in the morning and group psychotherapy and physical exercises in the afternoon. After this he was transferred to a reconditioning company for ten days and then was interviewed and reevaluated by the psychiatrist. Ether was administered by the open drop method. Within two to five minutes the patient reached a mental state in which he was reliving his painful battlefield experience and expressing the emotion associated with it. As soon as he had made the mental transition to a hypnotic state, ether administration was stopped. The patient remained in this state as long as the psychiatrist chose to maintain it. Occasionally the patient suddenly came out of the hypnotic state, and ether was readministered. The psychiatrist brought the patient out of the hypnotic state by reviewing chronologically the events leading up to admission to the hospital. Since the patient was conscious throughout the ether interview, he did not usually forget the material discussed during the abreaction. That ether was the significant factor in the therapeutic results obtained from the two week treatment program is suggested by the following statistics: Fifty neurotic patients received this two week program of treatment except that the ether interviews were omitted; only 2 of these patients were capable of resuming duty overseas. One hundred similar patients received the two week program of treatment, including the ether interviews. Of these, 50 were satisfactorily performing noncombat duty overseas one and two months after discharge from the hospital.

New York State Journal of Medicine, New York

46:1983-2094 (Sept. 15) 1946

Route of Percutaneously Applied Antigen Transported Through Body by Electrophoresis. A. Walzer and H. G. Golan.—p. 2027.
Penicillin Ointment in Treatment of Diseases of Skin. J. J. Hallett, E. D. Osborne and J. W. Jordon.—p. 2033.
Resistant Dermatophytosis and Its Treatment. R. M. Montgomery and Esther A. Casper.—p. 2038.
Syphilis in Army Separatees. T. Rosenthal and N. Sobel.—p. 2042.

46:2095-2222 (Oct. 1) 1946

Anesthesia for Sympathectomy in Hypertension. D. L. Burdick, M. L. Phelps and M. C. Peterson.—p. 2139.
Aids in Thoracic Surgery. C. L. Burstein and E. A. Rovenstine. —p. 2142.
Use of Ozonides in Dermatology. H. Sharlit.—p. 2147.
Treatment of Experimental Syphilis with Penicillin. C. M. Carpenter, Ruth A. Boak and L. M. Jacobs.
Pigmentary Changes in the Skin in Negro. G. A. Spencer.—p. 2154.
Report on Outbreak of Endemic Febrile Illness, Not Yet Identified, Occurring in New York City. B. Shankman.—p. 2156.
Neurodermatitis and Occupational Dermatitis. O. L. Levin and H. T. Behrman.—p. 2160.
Results of Treatment of Psychoneuroses by General Practitioner: Follow-Up Study of 500 Cases. P. G. Denker.—p. 2164.

Psychosomatic Medicine, Baltimore

8:293-366 (Sept.-Oct.) 1946

Studies on Nature of Certain Symptoms Associated with Cardiovascular Disorders. G. A. Wolf Jr. and H. G. Wolff.—p. 293.
Hormonal Modification of Social Behavior: II. Effects of Sex Hormone Administration on Social Dominance Status of Female Castrate Chimpanzee. H. G. Birch and G. Clark.—p. 320.
Electrocardiographic Study of Psychoneurotic Patients. S. S. Winton and L. Wallace.—p. 332.
Inguinal Hernia in Psychiatric Patients. P. Bergman.—p. 338.

Review of Gastroenterology, New York

13:347-416 (Sept.-Oct.) 1946

Radiation, Effects on Human Stomach: Preliminary Report. I. B. Brick.—p. 363.
Pituitary Tumors and Peptic Ulcers. H. T. Wilson, J. D. Olson and A. B. Rivers.—p. 371.
Chronic Parenchymatous Hepatitis, Cause of Latent Hepatic Disease. A. O. Wilensky.—p. 373.
New Light Weight, Extra Flexible Gastroscope. A. R. Hufford.—p. 381.
Brucellosis and Digestive Tract Hemorrhages. M. Allende.—p. 383.

United States Naval Med. Bulletin, Washington, D. C.

46:1493-1638 (Oct.) 1946

Further Studies on Use of Tantalum for Cranioplasties. O. H. Fulcher. —p. 1493.
Simplified Technic for Fabrication of Tantalum Skull Plates. R. G. Gerry.—p. 1499.
Studies on New Insect Repellents. M. Pijoan, H. J. Gerjovich, M. L. Hopwood, and Others.—p. 1506.
Achievement of Navy Peacetime Medicine. B. F. Dixon.—p. 1523.
Prevention and Treatment of Aerotitis Media. C. W. Shilling, H. L. Haines, J. D. Harris and W. J. Kelly.—p. 1529.
Radium Therapy in Aerotitis Media. P. Northington.—p. 1559.
Significance of Hanger's Test (Cephalin-Cholesterol Flocculation Test) in Disorders of Stomach and Colon. H. A. Monat and J. H. Batzle Jr.—p. 1568.
Neurosurgery on Board an Attack Transport (Hospital). C. D. Hawkes —p. 1571.
Influenza Aboard an Attack Transport. J. E. McFarland.—p. 1576.
Diet Aboard an Auxiliary Ship. R. W. Hillman.—p. 1579.
Usefulness of Cornell Selectee Index at Neuropsychiatric Unit of Naval Training Center. H. I. Weinstock and R. I. Watson.—p. 1583.
Intestinal Parasitism: Statistical Study on 1,000 Patients Recently Returned from Pacific Area Duty. P. Michael.—p. 1589.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Journal of Dermatology and Syphilis, London

58:213-262 (Sept.-Oct.) 1946

*Clinical Study of Sulfonamide Dermatitis. B. Phillips.—p. 213.
Inquiry into Social Background of Convicted Women at Holloway Prison Infected with Venereal Diseases. K. Edkins.—p. 228.
Case of Allergy to Phenylhydrazine. B. Solomons.—p. 236.

Sulfonamide Dermatitis.—Phillips reports 100 cases of sulfonamide dermatitis observed among 2,430 cases of skin disease in the dermatologic wards of several military hospitals. These cases are compared with 100 controls in which sulfonamides had not been administered and 100 cases in which sulfonamide therapy had been administered at some period of life. Previously described tests for hypersensitivity to sulfonamides have been found unsatisfactory and a new method has been evolved, which consists of a combined patch and oral test. This test has proved to be 100 per cent accurate. Latent sensitivity to sulfonamides in apparently healthy people can be revealed by the use of this test. Eight per cent of the subjects who had received previous sulfonamide therapy had become sensitized. It is important to distinguish between toxic sulfonamide rashes and sulfonamide dermatitis. The toxic eruptions include various types of rash: morbilliform, erythematous, scarlatiniform, urticarial, erythema multiforme type and purpuric. These rashes disappear shortly after the drug is discontinued. The explosive eczematous eruptions which fail to disappear rapidly on withdrawal of the drug and generally require prolonged hospitalization are quite different.

British Medical Journal, London

2:449-480 (Sept. 28) 1946

Some Vulgar Errors in Regard to Goiter. J. W. Linnell, G. Keynes and J. E. Piercy.—p. 449.
Asthma in Childhood. T. N. Fisher.—p. 452.
*Perforation of Ileum in Enteric Fever: Notes on 22 Consecutive Cases. G. E. Dunkerley.—p. 454.
Amebiasis in Italy. G. W. Hayward.—p. 457.
Case of Hydatidiform Mole at Age 52. A. H. Charles.—p. 460.

Perforation of Ileum in Enteric Fever.—Dunkerley reports observations on 22 ileal perforations which were operated on at the Kolar Gold Field Hospital in South India between 1935 and 1945. During this period 1,077 cases of enteric fever were treated at this hospital, with a total of 11 perforations. A further 11 perforations occurred among ambulant patients with enteric fever. Perforation occurred usually in the middle of the second week. Sudden and shocklike abdominal pain was the most constant symptom at the onset. In nonambulant cases the time interval between perforation and operation averaged eleven hours. In ambulant cases the exact period could be ascertained in only 4, with extremes of seven and twenty-six hours and an average of thirteen hours. A right paramedian incision was used in all cases. When the correct diagnosis was made before operation a small low incision was made; low for convenience of access, and small to minimize the risk of ventral hernia. The latter complication was a distinct hazard in typhoid perforation, since many wounds became infected. The perforation was repaired with interrupted sutures through all coats transversely and buried by a continuous seromuscular stitch. Omentum was sewn over the repaired site. Wound infection was a troublesome sequel. There were 5 deaths in the 11 ambulant cases and 7 deaths in the nonambulant cases.

Journal of Tropical Medicine and Hygiene, London

49:63-82 (Aug.-Sept.) 1946

*Nonspecific Chemotherapy of Malaria. S. Lorant.—p. 63.
Use of Sigmoidoscope in Diagnosis and Prognosis of Amebic Dysentery. G. A. Rail.—p. 68.
Cephalin-Cholesterol Flocculation Test in Typhoid and Typhus Fevers. J. G. Makari.—p. 70.
Case of Snake Bite. C. E. Lumsden.—p. 72.
Penicillin in Chagas Disease, with Note on Chagas Disease in Ecuador. K. V. Earle.—p. 74.
Tropical Pyomyositis and Its Relation to Deficiency of Vitamin B Complex. D. Brouwer.—p. 77.

Nonspecific Chemotherapy of Malaria.—Lorant reasons that red blood cells containing parasites are altered in their physical condition and assumes that such cells are more easily and selectively attacked by various agents than are normal cells. If the many different antimalarial remedies cause the removal of the plasmodia-containing red cells from the circulating blood, in spite of such different chemical constitutions as that of quinine, arsphenamine and the sulfonamides, this almost unspecific effect has a far reaching unspecific cause. He concludes that every red cell injuring agent is a potential antimalarial factor. It is a consequence of this hypothesis that simple inorganic salts such as sodium thiosulfate may have antimalarial effects. He investigated the effect of sodium thiosulfate and found a prompt response to its administration in 42 out of 79 malaria cases. The hypothesis which assumed the efficacy of sodium thiosulfate is supported by these results.

Lancet, London

2:405-440 (Sept. 21) 1946

Penicillin in Wound Exudates. M. E. Florey, E. C. Turton, M. B. Adelaide and others.—p. 405.
Coronary Occlusion in Young Adults: Review of 50 Cases in Services. M. Newman.—p. 409.
Deficiency Diseases in Prisoners of War at Changi, Singapore, February 1942-August 1945. R. C. Burgess.—p. 411.
Blood Groups in Bone Marrow. I. A. B. Cathie.—p. 418.

2:441-476 (Sept. 28) 1946

*Perforated Peptic Ulcer Treated Without Operation. H. Taylor.—p. 441.
Sensitivity to Penicillin: Anaphylaxis and Desensitization. W. J. O'Donovan and I. Klorfajn.—p. 444.
*Treatment of Infantile Pellagra: Assessment of Value of Protein Hydrolysates. T. Gillman and J. Gillman.—p. 446.
Early Ovulation. S. Sevitt.—p. 448.
Empirical Tests of Liver Function. M. Maizels.—p. 451.
Perforation of Aorta by Swallowed Bones. M. Haines.—p. 455.

Perforated Peptic Ulcer Treated Without Operation.—In operating on early perforations Taylor repeatedly found that the peritoneal fluid was sterile and that the perforation was sealed off by adhesion to a neighboring viscus. The firmness with which the adherent surfaces were applied to each other suggested that suturing was unnecessary. When similar cases were seen later, the author left the sealed off perforation undisturbed without untoward sequels. The factor common to all of them was that the patient's last meal had been eaten some time before the operation and that the stomach was relatively empty at the time. He reproduced this condition in the early cases by substituting gastric aspiration for operation, relying on the peritoneum to deal with the fluid that had already escaped and on the local adhesion to seal off the perforation. Of 28 patients treated in this way, 24 have made an uneventful recovery, 3 died of causes unconnected with the treatment and 1 died who might have been saved by immediate operation. The technic described is worthy of extended trial in early cases, operation being reserved for cases with gross flooding of the peritoneal cavity or late cases with established peritonitis.

Treatment of Infantile Pellagra.—The Gillmans discuss a syndrome of malnutrition in African infants and children which in its acute form expresses itself as a characteristic dermatosis with varying grades of edema, hypoproteinemia, steatorrhea or diarrhea. The mortality can be very high and is related to the severity of the fatty change in the liver. Gastric extract was the most satisfactory form of treatment, but the lack of constant supplies made it possible to treat only a limited number. While waiting for further supplies they were constrained to use other forms of therapy. Of 10 infants who were treated only with dietetic measures, 6 were improved and 4 died. Of 36 who were treated with diet and vitamins, only 8 improved. Liver extract injections were given to 10, and 7 of these were improved. Of 15 who were treated with oral liver extract and vitamins, only 4 improved. Protein hydrolysate was used in 20 infants, 6 of whom improved. Of the 50 infants given dried stomach, all but 3 improved. This group had the lowest mortality rate of only 6 per cent. Dried stomach plus vitamins was effective in 13 of 20 patients. The authors stress the effectiveness of ventriculin. The addition of vitamin concentrates to ventriculin significantly detracts from its effectiveness. Vitamin concentrates in combination with liver extracts or ventriculin or with a full diet are contraindicated in the treatment of this form of malnutrition. Since protein hydrolysates may result in toxic reactions and rarely promote recovery, the authors consider this form of therapy hazardous.

Schweizerische medizinische Wochenschrift, Basel

76:623-646 (July 13) 1946

*High Incidence of Acute Atrophy of Liver in Basel. H. Staub.—p. 623.
Occurrence of a Skin Disease Hitherto Unknown in Switzerland. Margrit Esser.—p. 625.
Change of Capillary Resistance in High Altitude Climate. F. Wyss and A. Gianoli.—p. 626.
Chronic Callous Ulcer of Gallbladder with Arrosion of Branch of Cystic Artery and Fatal Hemorrhage into Biliary Passages. H. Löffler. —p. 630.
Relations of Adrenal Cortex to Infections. L. Biro.—p. 633.
Therapeutic Experiences with Implantation of Pure Substance of Estrogenic and Androgenic Hormones. C. Müller.—p. 635.
Primary or Secondary Tendon Suture. K. Lenggenhager.—p. 642.

Acute Atrophy of Liver.—Staub says that between May 17 and June 15, 1946, 11 cases of acute or subacute atrophy came to necropsy in Basel. The patients were hospitalized in a jaundiced condition but in spite of rest, protective diet for the liver and the administration of insulin, dextrose, epinephrine, vitamin K and blood plasma, these patients developed hepatic coma and died. The outcome of liver tests, the increased urobilinogen in the liver and the sweetish odor of the expiratory air indicated a parenchymatous lesion of the liver. The entire liver was atrophic, but particularly the left lobe. Cholemic nephroses and signs of hemorrhagic diathesis in the endocardium, myocardium and lung, as well as enteritis, completed the pathologic picture. The author is unable to decide whether this represents a new form of virus hepatitis, whether the virus of epidemic hepatitis has become more malignant or whether a combination of hepatic lesions was responsible. These fatal cases of acute atrophy of the liver did not occur in the course of a widespread epidemic; on the contrary, the number of reported cases of hepatitis was small.

Revista Clínica Española, Madrid

21:379-466 (June 15) 1946. **Partial Index**

Possibilities and Technic of Roentgenologic Exploration in Early Diagnosis of Gastric Cancer. A. García Barón.—p. 396.
*Cor Pulmonale. M. Bozal Urzay and J. Díaz Opacio.—p. 408.
Studies on the Physiopathology of the Gastrectomized: Early and Systematic Exploration After Resection. J. Fernández Pleyan. —p. 415.

Cor Pulmonale.—Bozal Urzay and Díaz Opacio review 69 cases of chronic cor pulmonale and 2 cases of acute cor pulmonale. The acute cases, both of which were fatal, developed after abdominal intervention. In 35 of the 69 chronic cases occupational disease played a causal role; there were jute and blanket workers, miners and millers. Cough was a constant symptom. Dyspnea and cyanosis were also frequent. Many patients had bradycardia. Arterial tension was usually low. Electrocardiograms manifested bradycardia, low voltage, ventricular complex of small amplitude and of right predominance. Roentgenologic examination revealed enlargement of the heart, particularly of the right side. In patients in whom occupation played a causal role it was deemed necessary to change the working conditions, and this was often followed by favorable results. Change in residence to dry climates of moderate altitudes has also been advised. It is essential that these patients be guarded against intercurrent diseases of the respiratory tract; for obese patients reducing is advised. Medication depends on the presence or absence of decompensation; in the first case there usually also exist hepatomegaly and increase in venous pressure. In these cases purgation, bleeding and a mercurial diuretic combined with an ammoniacal preparation are recommended. Digitalis lanata associated with vitamin C permits the later employment of strophanthin preparations. In patients without decompensation, the respiratory symptoms usually disappear following the improvement of the circulatory condition. Treatment must always be directed first against the causal pulmonary disorder which originates the cor pulmonale.

Revista Cubana de Cardiología, Havana

7:1-48 (Jan., Feb., March) 1946. **Partial Index**

*Familial Coronary Syndrome. P. González Batle.—p. 29.

Familial Coronary Syndrome.—The subjects of González Batle's report were 3 brothers and a sister, all of whom died from a coronary syndrome at the age of about 60 years. The 4 patients were in prosperous economic condition. All 4 presented arteriosclerosis and hypertension. None had syphilis. Electrocardiograms were studied in 3 of the patients. They showed that the infarct was located in about the same zone in all 3, namely in the anterior wall of the left ventricle. The duration of the disease was seven months in the 3 brothers and about four years in the sister. The role of hereditary predisposition to the disease in these cases is discussed. There was no history of either cardiovascular or coronary disease in the ancestors of the patients.

Revista de Gastroenterol. de Mexico, Mexico, D. F.

10:255-312 (Sept.-Oct.) 1945. **Partial Index**

Etiopathogenesis of Gastroduodenal Ulcer. C. Véjar Lacave.—p. 255.
*Shock Due to Acute Necrosis of Pancreas After Operation on Bile Tract. J. M. Oviedo Bustos.—p. 287.

Pancreatic Shock.—A man aged 60 presented acute symptoms of biliary duct lithiasis. A hard node was encountered in the head of the pancreas during the operation for the removal of stones and a duodenectomy. Acute shock appeared on the third postoperative day. Blood transfusion and antishock treatment failed. Necropsy showed acute necrosis of the head of the pancreas. Oviedo Bustos calls attention to the frequency of shock after operations on the bile tract. The cause of shock after biliary surgery is either chronic or latent pancreatitis. An early diagnosis of pancreatic shock is of importance. Pancreatic shock can be combated by early blood and plasma transfusion.

Acta Medica Scandinavica, Stockholm

124:417-510 (June 25) 1946

*Treatment of Polycythemia Vera with Large Venesections and Plasma Transfusions. G. Widström and B. Swedberg.—p. 421.
Contribution to Knowledge of Paroxysmal Cold Hemoglobinuria. L. E. Tötterman.—p. 446.
Studies on Serum Proteins in Hepatitis: II. Takata Reactions and Gros Reaction. M. Bjørneboe.—p. 466.
*Age Distribution of Poliomyelitis During Recent Epidemics in Copenhagen. P. Horstmann.—p. 482.
Renal Thresholds: General Remarks. G. Ekehorn.—p. 494.

Large Venesections and Plasma Transfusions in Polycythemia Vera.—Widström and Swedberg describe a new method for treating polycythemic states which was developed by Widström in 1943 and in which venesection is followed by plasma transfusions. As the withdrawn blood is immediately replaced with an adequate volume of plasma, the venesections can be made exceedingly large—well up to 1,500 in less than thirty minutes. This operation may be repeated at short intervals. Thus a rapid normalization of the corpuscle-plasma ratio may be achieved. Like most previously employed methods, this one is chiefly symptomatic; but the elimination of some etiologic factor may also be attained by the rapid breaking of a vicious circle of hyperactive erythropoiesia resulting from bone marrow anoxia caused by the slow circulation of highly viscous polycythemic blood. The patients have noticed this rapid normalization of blood values as an immediate relief of symptoms and have been able to resume their work. So far the authors have used this treatment in treating 7 women and 2 men between 44 and 73 years of age. Eight of these were improved. The authors think that the venesection and plasma transfusion therapy is worth a further trial on a larger number of patients.

Age Distribution of Poliomyelitis During Epidemics in Copenhagen.—Horstmann states that the four large epidemics of poliomyelitis in Copenhagen during the last decade have shown a characteristic age trend of the paralytic patients in that a larger and larger percentage occurred in the higher age groups. In the 1934 epidemic 20 per cent of the paralytic patients were over 15 years old, in 1937 there were 27 per cent, in 1942 there were 44 per cent and in 1944 there were 53 per cent over that age. The nonparalytic patients show no such trend. Latent immunization against poliomyelitis in its paralytic form has decreased during recent years. Attention is drawn to the fact that latent immunization against tuberculosis has decreased during the same period. Both developments might be caused by some change in the hygienic conditions. Some hygienic factor in the treatment of milk during recent years might be the cause of fewer persons being exposed to subclinical infections than previously. The author admits that this assumption is purely hypothetical.

Book Notices

The Modern Treatment of Diabetes Mellitus Including Practical Procedures and Precautionary Measures. By William S. Collens, B.S., M.D., Chief of the Diabetic Clinic, Israel Zion Hospital, Brooklyn, New York, and Louis C. Boas, A.B., M.D., Assistant in the Diabetic Clinic, Israel Zion Hospital. Fabrikoid. Price, $8.50. Pp. 514, with 193 illustrations. Springfield, Illinois: Charles C Thomas, 1946.

This excellent book supplies the modern treatment of diabetes. It shows evidence of keen observation and familiarity with all types of the disease. Illustrations abound and the book is distinctive because of colored illustrations portraying the complications.

The introduction presents several new aspects of the history of diabetes. References to the earlier literature dealing with attempts to secure an extract from the pancreas are carefully recorded. There is an extensive quotation from Banting's story of his discovery as he gave it at the dedicatory exercises of the Lilly Research Laboratories in 1934. All will enjoy rereading his simple account of what he had done.

The diagnostic aspects of diabetes are well presented and in a different manner from the usual routine of polydipsia, polyphagia and polyuria. The chapters on diet are sensible as well as the information about the use of insulin. Hypoglycemia is treated well, and in the description of the symptoms the authors show intimate knowledge of the condition. As for the chapter on coma, much is good, but unfortunately in the enumeration of topics of treatment carbohydrate is placed first and insulin second! Furthermore, the authors apparently do not grasp the point that liberal doses of insulin given in the first two or three hours do more good than if spread out through many hours. They still cling to the use of glucose and even advocate the use of alkali.

The chapter on pregnancy is excellent, but not enough stress is laid on the renal glycosuric element. Unless the physician recognizes this, his patient is apt to be undernourished because so many calories are lost as glucose in the urine. Furthermore, a pregnant diabetic patient is apt to show acidosis unless more than 100 Gm. of carbohydrate is utilized; and one must always be on the watch for this despite the liberal supply of carbohydrate in the diet. Close attention must be paid to promote utilization by spreading the carbohydrate throughout the day and often using insulin several times in the twenty-four hours even if protamine zinc insulin is employed. Care in the administration of insulin to a pregnant diabetic patient is essential because of this renal glycosuric element.

A heating cradle or baker is recommended for the treatment of conditions of the feet. It is even suggested that these bakers be made at home by the patients. The larger and most experienced clinics in peripheral vascular disease would hardly support this because of the frequency of the occurrence of burns on diabetic feet and the desirability in many cases of employing low rather than high temperatures.

Many pages are devoted to analyses of the urine and blood for sugar and the blood for carbon dioxide, the idea in the author's mind evidently being to make everything in the book so plain that he who runs may read. A Collens Diet Calculator is also included with the book as sold.

In general, barring these few notes of criticism, the authors deserve commendation for presenting in attractive form a "practical comprehensive guide for general practitioners who treat diabetic patients."

Précis de virologie médicale: Vaccine variole, herpès, encéphalites, rage, poliomyélite, chorio-méningite, fièvre jaune, psittacose, influenza, maladie de Nicolas et Favre, nature et genèse des ultravirus, techniques. Par C. Levaditi, directeur scientifique de l'Institut Alfred-Fournier, Paris. Paper. Price, 235 francs. Pp. 250, with 142 illustrations. Paris: Masson et Cie, 1945.

The importance of filtrable agents in human pathology is obvious. Of the many infectious and contagious diseases of man caused by viruses, a number of the more extensively studied have been selected by the author for brief discussion. These include vaccinia and variola, herpes simplex, some of the encephalitides, rabies, poliomyelitis, yellow fever, psittacosis, influenza and lymphogranuloma venereum. In each case a brief summary is given of the history, clinical and epidemiologic peculiarities, histopathology and immunology of the disease. The factual knowledge of the causative agents is summarized. In addition to these chapters on individual diseases, one section each has been devoted to the nature and origin of viruses and another to biologic and physical technics required for virus research. The individual chapters are concise and clearly written, as one would expect of an author who has contributed so extensively to our knowledge of virus diseases. However, one feels that the absence of references to many important contributions of the two to four years prior to the date of publication is a distinct drawback to the value of this summary. It is obvious that the interruption of exchange of scientific information during the war years is largely responsible for this lack. The book contains numerous illustrations, many of which are good. More explanatory information regarding some of the charts, either in the text or in captions, would have greatly facilitated their interpretation. Although many of the statements are referred to their original authors, no complete bibliography is given. This is all the more disturbing since many errors in spelling are noted, particularly among the British and American names. Also the year of publication, the only further identification of the contribution, is on occasion erroneous.

Neurosis and the Mental Health Services. By C. P. Blacker, M.A., M.D., F.R.C.P. Foreword by Sir Wilson Jameson, K.C.B., M.A., M.D., Chief Medical Officer of the Ministry of Health and the Ministry of Education, London. Oxford Medical Publications. Fabrikoid. Price, $5. Pp. 218, with 1 illustration. New York, London & Toronto: Oxford University Press, 1946.

This study, which started in 1942 as a survey of the effect of the war on the psychiatric outpatient services of England and Wales, has turned out to be far more than its author originally intended. As it stands, it is a comprehensive blueprint of clinic organization, psychiatric education, industrial psychiatry, the relationship of psychiatry to general medicine and the respective roles of the general and the mental hospital. For various reasons so comprehensive a plan could hardly be executed soon in this country; mental health and, indeed, most health matters are state responsibilities, not central, as in England; besides, the medical profession of this country is fortunately not under governmental control. Nevertheless the material presented by Dr. Blacker is valuable as a guide to all who are interested in medical progress and a more effective cross fertilization of psychiatry and the rest of medicine.

Altogether, 216 clinics were studied, 71 per cent of which were held at voluntary hospitals; many of these, however, were staffed from the neighboring mental hospitals. Most had been established since 1929. There was an increase in the number of cases of neurosis treated during the war years, but some of this growth is attributable to factors other than the war, such as a greater readiness on the part of practitioners to use the clinics. Only about 1 case in 30 seen at the clinics was considered a psychiatric air raid casualty.

Dr. Blacker discusses the isolated growth of institutional psychiatry; this has been remedied to a considerable extent by the Mental Treatment Act of 1930, which encouraged the development of outpatient services by the mental hospitals. Child guidance has grown up as an independent specialty, too little tied in either with the rest of psychiatry or with pediatrics. Vocational guidance and much of industrial psychiatry have come from nonmedical psychology. Outpatient care of the neurotic originated in the volutary hospitals, largely as an offshoot of neurology. "There is today a need for an integration of the subject, comprising these new developments. . . . That these provinces should be integrated rather than further separated is the main argument of the recommendations which follow" (p. 40). He goes on: "It would be a grave mistake to embark on big schemes involving extensive new buildings and new organization if adequate personnel were not available. Good men and women count for more than modern buildings and expensive equipment. A good psychiatrist produces good results wherever he does his professional work." Here is food for thought for our monument builders!

The author would see instituted promptly programs of training for psychiatrists, nurses, social workers and occupational therapists, with a wider instruction of general medical men in psychiatry. In other words, the general practitioner should be ready to do much of his own psychiatric follow-up. The mental hospitals should be more closely linked to the general hospitals, and the two should function jointly in providing mental health services. The mental hospitals might well use part time physicians (in the manner, perhaps, being developed by our veterans' hospitals); they would operate more outpatient and child guidance services, assist in the field of industrial psychiatry and rehabilitation and as aids to the court in dealing with delinquency. Admission to mental hospitals should be made even less formal than at present, without certification or commitment.

The volume is closely packed with facts and suggestions and is therefore difficult to condense within a short abstract. There is a vast amount of material in it which can be read with profit by all who come into contact with the growing field of psychiatry.

Experimental Hypertension. By William Goldring and others. Being the Results of a Conference on This Subject Held by the Section of Biology of The New York Academy of Sciences February 9 and 10, 1945, New York City. Volume III, Special Publications of the New York Academy of Sciences. Roy Waldo Miner, editor. Cloth. Price, $3.75. Pp. 179, with illustrations. New York, 1946.

This volume reports a conference on experimental hypertension held under the auspices of the Section on Biology of the New York Academy of Sciences in February 1945. This is one of a number of excellent symposiums which the academy has sponsored from time to time on subjects of interest to the medical and allied professions.

The symposium reported in this volume deals largely with recent advances in the field of experimental renal hypertension, although brief considerations of experimental neurogenic and other hypertensions are included. The symposium includes papers by investigators representing nine different laboratories (two in South America) which have contributed importantly to experimental renal hypertension in recent years. Unfortunately the war precluded the participation of British and Belgian groups. Beginning with the introductory presentation by Dr. Harry Goldblatt, whose classic demonstration of experimental renal hypertension in 1934 stimulated the splendid investigative interest in this field ever since, each paper of the conference was searchingly discussed; these discussions are accurately recorded in the volume except for their inadvertent omission from two of the papers.

The book summarizes excellently the present status of our knowledge of experimental renal hypertension. In addition to recounting reported recent advances, problems still awaiting solution are outlined. The reader not intimately familiar with the field may be surprised to learn that authorities are not agreed that renal ischemia is necessary for the production of experimental renal hypertension by arterial constriction or that the renin-hypertensin (angiotonin) mechanism is definitely responsible for the maintenance of experimental renal hypertension. The reader will also learn of evidence for alternative theories seeking to explain the pathogenic mechanism of experimental renal hypertension on the basis of increased production of pressor amines or decreased release of a depressor principle by the kidney. Even the generally accepted humoral mechanism of pathogenesis is questioned for late experimental renal hypertension by one laboratory group.

The reported results of therapeutic experiments with various renal extracts and certain marine oils afford hope that a more specific antihypertensive therapy may eventually be made available for trial in man. There is included a limited discussion of the current divergent points of view regarding the pathogenic relationship of experimental renal hypertension to essential hypertension.

This book should be read by all investigators in the fields of experimental and clinical hypertension and by those physicians and others who will appreciate a moving account of sometimes brilliant and more often painstaking experimental elucidation of the fundamental mechanisms of hypertension and certain aspects of cardiovascular and renal pathophysiology.

Anesthesia in General Practice. By Stuart C. Cullen, M.D., Head of Division of Anesthesiology, Department of Surgery, State University of Iowa Hospitals, Iowa City, Iowa. Cloth. Price, $3.50. Pp. 260, with 34 illustrations. Chicago, Year Book Publishers, Inc., 1946.

This concise, clearly written textbook is an excellent compendium of the fundamental considerations of present day practice in the rapidly growing field of anesthesiology. According to the preface, it "is to be construed not as a complete text in anesthesiology but rather as a manual useful to the medical student, the part-time anesthetist and others who may be called upon to employ depressant drugs, alleviate respiratory depression or obstruction and treat hypoxia or shock." The logical progression in the development of a rational basis for the understanding of fundamental problems makes easy, enjoyable reading. The twelve chapters, representing outline topics on which the context is developed, include preanesthetic medication, airway, agents and technics of inhalation anesthesia, spinal and regional analgesia, signs of anesthesia, choice of anesthetic agent and technic, preanesthetic and postanesthetic care of the patient, and explosion hazards. Curare is discussed with regard to its use as an adjunct to inhalation anesthesia. Especially fine is the chapter on recognition and treatment of shock. A chapter on oxygen therapy includes discussion of the normal physiology of the oxygen transport system of the body and the many circulatory and respiratory factors which may interfere and cause hypoxia. Repetition is infrequent except where effectively and deliberately used to emphasize important points. Controversial material is kept to a minimum. Effective and judicious use has been made of a few charts and some good teaching cartoons. An excellent book, well suited to the purpose for which it was written.

Technique of Psychoanalytic Therapy. By Sandor Lorand M.D., Member of the Faculty of the New York Psychoanalytic Institute, New York. Fabrikoid. Price, $3.50. Pp. 251. New York: International Universities Press, 1946.

This book is an outgrowth of a series of lectures given by the author to physicians in training at the New York and Philadelphia Psychoanalytic Institutes. As such, it constitutes a well and simply written introduction to the technical procedures and simple technical problems that may arise in the transference neuroses. It contains numerous suggestions for the handling of patients from the first contact to the termination of the analysis. The young analyst will be gratified at the concrete pointers offered on such subjects as interpretation, dream analysis and countertransference. The author emphasizes that his methods in treatment follow closely those of his teacher, Ferenczi. His technic in therapy constantly points up his active participation in the analytic situation. Many practicing analysts may not agree with his methods; however, the author believes that more progress can be anticipated by following his example. Of particular value to the beginner is the author's chapter on dream analysis. One cannot emphasize sufficiently the pitfalls of one's personal association in the interpretation of dream material. Only the patient can lead one to the correct solution. The chapter on countertransference, though not by any means exhaustive, gives a clearcut indication of the numerous factors involved in the therapist's attitude toward the patient and the therapeutic hour. Ample case material is cited throughout the book to illustrate the author's point of view and technic. All the material is directed to the young physician in psychoanalytic practice and is not meant for the general practitioner.

Experiments on the Presence of Carcinogenic Substances in Human Surroundings. By Theodore van Schelven. Paper. Price, $1. Pp. 16. Kosmos Publishing Company, Keizersgracht 133, Amsterdam, 1946.

In this small monograph the author describes attempts to demonstrate carcinogenic substances in ordinary daily human surroundings as possible causes for cancer. Benzene extracts of house dusts, textiles and other common objects were not carcinogenic when tested in mice. Similar extracts of ordinary foods were also inactive, but extracts from the black, charred crusts induced tumors. The author attempts to correlate the incidence of cancers with racial dietary and other habits. The monograph has no bibliography. It loses much of its value because of failure to correlate the work with numerous experiments along the same lines performed by others, including countrymen of the author.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

SAFETY OF ANESTHETICS

To the Editor:—**Please give statistics on the relative safety of ether, ethylene and pentothal sodium for general anesthesia.**

L. J. Alger, M.D., Grand Forks, N. D.

ANSWER.—Statistical studies comparing the safety of the various anesthetic agents have never been entirely satisfactory. The argument regarding the comparative safety of ether and chloroform continued until the end of the nineteenth century. Its settlement, if it may be considered settled at present, was not made on the basis of statistics but rather as a result of experimental studies on laboratory animals. Reasons for the unsatisfactory nature of statistical evaluation of the anesthetic drugs are numerous. One of the most important is the influence of the manner of administration. The dose of agents, the technics used and the early recognition and treatment of undesirable side effects have more to do with safety than does the choice of agent.

To compare ether, ethylene and pentothal sodium is unsatisfactory because they are useful for different purposes. Ethylene, for instance, is distinctly less potent than ether and would therefore be used for less extensive and severe operations on patients often in better physical condition.

N. A. Gillespie has reported statistical studies dealing with deaths during anesthesia (*Anesthesiology* **5**:113 [March] 1944; *Brit. J. Anaesth.* **19**:1 [Jan.] 1944). In a general hospital over a ten year period he reported deaths in the operating room as follows:

	Number of Cases	Deaths During Anesthesia	Per Cent
Ether	9,741	12	0.123
Pentothal	1,568	2	0.1275
Ethylene	1,172	0	

In the same hospital over a four year period he found deaths to have occurred during residence in the hospital as follows:

	Number of Cases	Deaths in the Hospital	Per Cent
Ether	5,203	123	2.3
Pentothal	1,382	24	1.7
Ethylene	224	3	1.34

According to these figures ethylene appears to be the safest agent, and yet careful reading of Gillespie's papers convinces one that no such conclusion can be drawn.

ANALOGY OF COWPER'S AND BARTHOLIN'S GLANDS

To the Editor:—**Is Cowper's gland in the male analogous to Bartholin's gland in the female?** **I. J. Schwartz, M.D., Conroe, Texas.**

ANSWER.—Cowper's gland in the male and Bartholin's gland in the female have a similar origin from the urogenital sinus of the embryo and hence are regarded as homologous structures. Analogous glands are usually considered to have similar function. Since little is known of the functions of Bartholin's gland (which may not persist after formation in many females of lower mammals) and not much more concerning the function of Cowper's gland, the strict analogy may be questioned. In general terms the glands are frequently regarded as analogous.

INJECTION OF FURUNCLES WITH PENICILLIN

To the Editor:—**A recent circular from a drug house discussed the injection of penicillin into the "core" of boils and carbuncles. Is this good therapy or is there danger in injecting into an area of cellulitis?**

M. I. Steckler, M.D., Los Angeles.

ANSWER.—It has been demonstrated by Rose and Hurwitz (*New England J. Med.* **234**:291, 1946) that the injection of penicillin locally, i. e. well outside the center of local infections, is of definite value in limiting and overcoming local infections. They did not recommend the injection of penicillin into the "core" of boils (furuncle with cellulitis) and carbuncles. Concentrations of 10,000 to 60,000 units per cubic centimeter were used and the injections were made once a day for one to seven days. It should be emphasized that the injections are made outside the center of infection.

MEASUREMENTS OF THE UTERUS

To the Editor:—**References in the literature have not been found as to the size of the uterus in different pathologic conditions and intrauterine pregnancy. Most obstetricians and gynecologists use such terms as "size of a 5 to 7 week pregnancy" or "size of an orange." Are there any recorded exact measurements of the uterus in centimeters or other measures that can be universally accepted? At present this factor seems to be highly relative and subject to vast individual differences of opinion.**

Harold Broady, M.D., New York.

ANSWER.—There are no uniform measurements of the size of the uterus at different months of pregnancy, because the number of uteri with a fetus and placenta in situ which have been removed at different stages of pregnancy have been too few to permit scientific study. Hence reliance has been placed on the estimated size of uteri at different months. These measurements are really estimates and vary somewhat with different individuals. Further, there are inaccuracies due to differences in the amount of fat in the abdominal wall, variations in the amount of urine in the bladder, differences in the amount of liquor amnii in the uterus, the presence of twins, differences in shape of the uterus and other factors. For this reason the height of the uterus has been expressed as "half way to the umbilicus," "at the umbilicus," "so many centimeters above the umbilicus" and so on, but the umbilicus varies in position. MacDonald and Spiegelberg each measured the distance from the upper margin of the symphysis pubis to determine the duration of pregnancy, and Ahlfeld enunciated the rule "To obtain the fetal age divide the fetal length by 5 during the last five months of pregnancy and extract the square root of the fetal length before the fifth month. At term the fetus measures about 50 cm., at eight months 40 cm., at four months 16 cm., and so on."

No one method of determining the size of a uterus for the estimation of the duration of a pregnancy is reliable. However, those who have had considerable experience in obstetrics can estimate the duration of pregnancy with a high degree of accuracy by making a bimanual examination; but they would have difficulty in giving exact measurements of the uteri they felt. Nevertheless, in the interests of scientific accuracy perhaps it would be best to give up comparing myomatous uteri to pregnant uteri for size and instead try to estimate the height, width and depth of the myomatous uteri.

POLLEN CONTENT IN LOS ANGELES

To the Editor:—**1. What is the pollen content of the air at different seasons in Los Angeles? 2. Do the areas surrounding Los Angeles have a similar pollen count? 3. A patient sensitive to ragweed, dust, molds and grass wishes to change her residence from Illinois to Los Angeles. Would the prolonged warm weather tend to increase her allergic symptoms? Her allergy is well controlled by desensitization in Illinois. Could there be reasonable assurance that fairly good results would be obtained from desensitization in Los Angeles?** **M.D., Illinois.**

ANSWER.—1. Extensive data are not available on the pollen content of the air in the immediate city of Los Angeles and none whatever from surrounding areas closer than San Diego. Durham has carried out a study on the atmospheric incidence of Alternaria and Hormodendrum spores from March until November inclusive and a one season pollen study through the months of July, August, September and October. The fungus spore records show small but continuous amounts of Alternaria and Hormodendrum spores in the air throughout the period surveyed, with indications that these are probably continuous through the rest of the year. The ragweed figures as compared with Chicago showed a total seasonal count for Los Angeles of about 2.5 per cent of the average for Chicago. The amounts of grass pollen and miscellaneous chenopod-amaranth pollens were even less than those of the ragweed. Only a trace of sage pollen was found.

2. According to the southern California botanic survey of Piness, Miller and McMinn the incidence of the principal types of pollen offenders of the area surrounding Los Angeles differs greatly from that of other parts of southern California, particularly the inland valleys. Details of this survey can be obtained from the published report.

3. The prolonged warm weather of Los Angeles will not in any way increase the suffering of a ragweed sensitive person. In fact, it is altogether unlikely that a ragweed victim from Chicago will experience any difficulty whatever from ragweed exposure in the Los Angeles area. The slight exposure to these pollens in Los Angeles is much less than that in most of the northern hay fever resorts of Canada, New England and the Great Lakes area. Whether the outdoor dust of southern California is any more irritating to the membranes of an allergic person than the outdoor dust of Chicago has not been determined. Nor has any comparison been made of the effect of local house dusts in one area as compared with another. The grass pollen season in southern California occurs at a different season and continues longer than in Illinois. Bermuda grass

pollen is particularly active. This and other grasses begin to shed their pollen in the Los Angeles area as early as April and continue more or less through September. Even though the amount of grass pollen in the air is relatively small, a considerable amount of allergic difficulty is experienced from local exposure because Bermuda grass is widely used for lawns. Nevertheless, desensitization treatment is just as effective in the hands of experienced allergists in one area as in another. It would seem that the patient should benefit greatly by the change.

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Pinesa, George; Miller, Hyman, and McMinn, H. E.: Botanical Survey of Southern California in Relation to the Study of Allergic Diseases, *Bull. Southern Acad. Sc.* **25:** 37, 1926.

TREATMENT OF ERYTHEMA NODOSUM

To the Editor:—**A woman aged 25 had acute rheumatic fever five years ago following a streptococcic sore throat. At that time there were multiple erythematous nodules on the anterior and posterior surfaces of both legs. These nodules recurred six months ago and periodically become better and worse regardless of treatment. Several days after the intramuscular injection of 300,000 units of penicillin in oil there was an acute exacerbation of the nodules followed by a remission. Two weeks later the nodules again appeared in the same locations. The injection of sodium penicillin solution directly into one of the nodules has been considered. Please discuss the treatment of erythema nodosum occurring as a complication of rheumatic fever.**

Robert R. Geer, M.D., Grand Island, Neb.

ANSWER.—Erythema nodosum is a complication of many other conditions apart from rheumatic fever. In a condition in which the difficulty recurred over a period of five years it would seem likely that some other etiologic factor was involved. Tuberculosis is frequently the cause of such a condition and in the case described in the query should be diligently sought for. Infection of the paranasal sinuses not infrequently has been the cause. Mycotic infections have recently been found to produce this type of reaction. This is particularly true of coccidioidomycosis, which is now known to be endemic in certain parts of California. Syphilis has been blamed, but this cause seems questionable. As the nodes themselves are thought to be allergic in nature it is highly doubtful that the injection of an antibiotic would be of any value. The patient should be kept in bed during the active state and salicylates may be given. In stubborn cases x-ray treatments have been of value, but these are only palliative.

PRODUCTION OF PIGMENTATION IN NEOPLASTIC CELLS

To the Editor:—**Please discuss the treatment of patients with malignant melanoma by chemicals administered internally in the hope of promoting development of pigmentation within the neoplastic cells so that their rate of proliferation is diminished.**

Richard L. Sutton Jr., M.D., Kansas City, Mo.

ANSWER.—So far as known, experiments have not been recorded in which patients with malignant melanoma have been treated with chemicals administered internally to promote the development of pigmentation in the neoplastic cells so that their rate of proliferation will be diminished. Certain experiments have been made on animals with compounds which inhibit the action of certain enzymes concerned in the formation of pigment in the skin. It was hoped by these experiments to prove that, if the formation of pigment could be hindered, perhaps the cells would be overcome by the natural defensive forces of the body. Unfortunately the experiments were not successful in showing any degree of inhibition of the growth of experimental pigmented melanoma in animals.

MEDICATION AND JAUNDICE

To the Editor:—**Can the daily use of phenobarbital or epsom salt over a period of several years possibly produce jaundice?**

M. Alexander, D.D.S., Woodside, L. I., N. Y.

ANSWER.—Prolonged use of barbiturates has not been reported to cause jaundice. However, a large dose of barbiturate may further injure an already damaged liver and result in jaundice. It has been reported in cases of fatal or nearly fatal barbiturate poisoning.

Little or no systemic action of magnesium is seen when epsom salt is taken by mouth, because absorption is slow and excretion is rapid. In cases of renal injury in which there is interference with magnesium excretion some systemic action may be noted if a large dose is taken. This consists of depression of the nervous system and a curare-like action and is manifested by analgesia, anesthesia, muscular paresis and respiratory depression. Jaundice has not been reported.

TREATMENT OF THYROID ADENOMA

To the Editor:—**Please discuss the treatment of simple unilateral nodular goiter. What is the recurrence rate of these so-called adenomas after surgical removal? Is there any medical treatment for nodular goiter?**

M.D., New York.

ANSWER.—Since nonsurgical treatment will not cause disappearance of nodules in the thyroid gland (adenomas), the only choice is watchful waiting or surgical removal. By neglecting an adenomatous goiter the patient assumes three potential risks:

First, there is the danger of further growth of the nodule or nodules, an action which may eventually cause pressure symptoms or increase the difficulty of surgical intervention.

Second, hyperthyroidism may develop. Symptoms of toxicity associated with nodular goiter develop insidiously, and commonly the patient does not realize there is any change in his condition until after the development of visceral damage. The proportion of patients with benign nodular goiter who subsequently are afflicted with hyperthyroidism is not definitely known, but it is estimated to be at least 30 per cent.

Third, there is the possibility that an early malignant process may be present, or the subsequent development of malignancy may be overlooked. It is estimated that, of all the nodular goiters operated on, about 5 per cent prove to be malignant. Since there are no accurate criteria for judgment as to early malignancy of the thyroid gland, every patient who neglects a nodular goiter must assume this risk.

The risk of surgical removal of a nontoxic adenomatous goiter under ideal conditions is today exceedingly small, being less than 0.3 per cent, and the incidence of recurrence after operation on adult patients is almost negligible (most so-called recurrences of nodular goiter represent, in effect, growth of tumors that were not removed at operation). Therefore, when the hazard of neglect of an adenomatous goiter is compared with the hazard of operation, it would appear that neglect is accompanied by a greater risk than is surgical operation.

INFLUENZA VACCINE FOR CHILDREN

To the Editor:—**Please discuss the use of influenza virus vaccine in children from 12 to 36 months of age to protect against repeated common colds and influenza. What is the specific dosage for this treatment?**

H. E. Byrd, M.D., Carthage, Mo.

ANSWER.—Influenza vaccine is not expected to protect against the common cold; it is presumably specific for influenza A and influenza B. From observations in children it appears that 0.3 to 0.5 cc. given in the fall would be the proper procedure.

RAPIDITY OF PROCAINE HYDROCHLORIDE ANESTHESIA

To the Editor:—**In using procaine by infiltration, does one get most rapid anesthesia by using a hypotonic solution, an isotonic solution or a hypertonic solution?**

Lyman C. Blair, M.D., Houston, Texas.

ANSWER.—In using procaine by infiltration one gets most rapid anesthesia by using an isotonic solution.

SPLENECTOMY AND SUSCEPTIBILITY TO INFECTION

To the Editor:—**In the answer to "Relation of Splenectomy and Susceptibility to Infection" (Queries and Minor Notes, The Journal, Sept. 28, 1946, p. 250) the serious complication of thrombophlebitis of the veins of the portal system is not mentioned. This complication, though uncommon, probably occurs more often in splenectomy than in any other abdominal operation. Hanrahan and Vincent, in Lewis's Practice of Surgery, present one series of 71 cases in which 2 deaths were due to this complication and another series of 54 splenectomies in which this complication was probably the cause of death in 3 cases.**

George L. Nardi, M.D., Massachusetts General Hospital, Boston.

ALLERGY TO SODIUM CHLORIDE

To the Editor:—**I should like to comment on the answer to the query "Allergy to Sodium Chloride," which appeared in The Journal, Sept. 21, 1946. Allergy to sodium chloride exists, as demonstrated by the observations and investigations of Strouse, Vallery-Radot, Gutmann and Urbach (Urbach and Gettlieb: Allergy, New York, Grune and Stratton, p. 314). Hypersensitivity to cane sugar was described by different authors (ibid., p. 313).**

Erich Urbach, M.D., Philadelphia.